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ABSTRACT

The objective of this workshop was to prepare recommendations to the Government of Pakistan on a vocational guidance system which would be geared to the needs of the country, while bearing in mind the inevitable constraints on the resources and personnel which could be made available in a developing economy. Discussions centered on six working papers presented by consultants. The consensus was that an effective guidance system would require a joint effort by schools, training institutions, commerce, industry, and the community, with federal and provincial government support. A nine-point series of recommendations is presented, as well as texts of speeches and working papers from the conference. (Author/BP)

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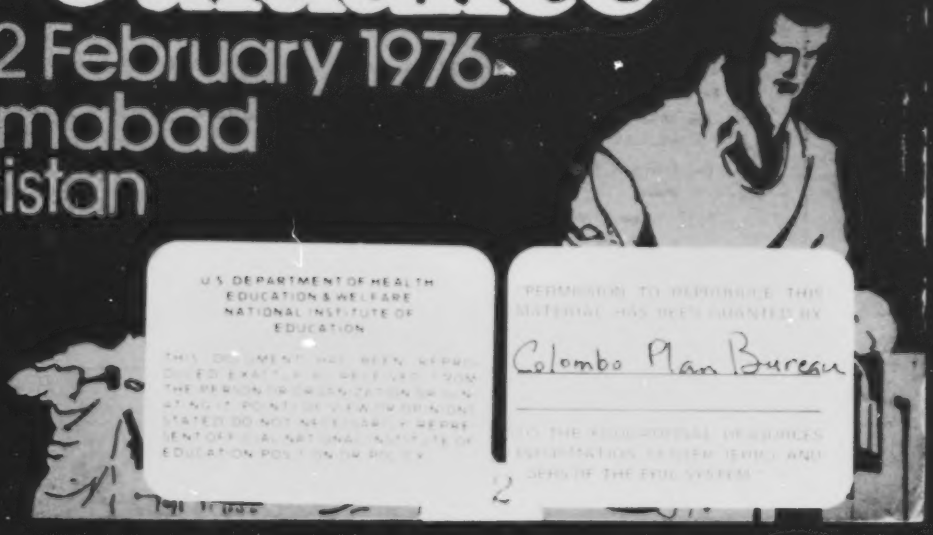
COLOMBO PLAN

Report of a Country Workshop

New Directions in Vocational Guidance

2-12 February 1976
Islamabad
Pakistan



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THE COLOMBO PLAN

The Colombo Plan was conceived at a meeting of the Commonwealth Foreign Ministers in Colombo in January, 1950. Its aim has been the economic and social development of South and South-East Asia through the co-operative efforts of the countries in the region assisted by other member countries.

All Colombo Plan aid is negotiated bilaterally. The receiving country determines its needs and begins negotiations with a donor country on the best way to fulfil them. From the beginning, the concept of co-operation and equality among members was emphasised.

The 27 member countries of the Colombo Plan are:

Within the Region: Afghanistan, Bangladesh, Bhutan, Burma, Cambodia, Fiji, India, Indonesia, Iran, Republic of Korea, Laos, Malaysia, Republic of Maldives, Nepal, Pakistan, Papua New Guinea, the Philippines, Singapore, Sri Lanka, Thailand and Republic of Vietnam.

Outside the Region: Australia, Britain, Canada, Japan, New Zealand and the United States of America.

There are four focal points around which the Colombo Plan revolves:

(1) The Consultative Committee is the top policy-making body consisting of ministers of member governments. This Committee meets each year in one of the member countries. Its task is to survey the development of the region, assess the needs, and to examine how international co-operation—in the twin forms of capital aid and technical assistance—can help to fill the gaps in national resources and accelerate the pace of development.

(2) The Colombo Plan Council consists of the representatives of all the Colombo Plan countries most of which have diplomatic missions in Colombo. The Council, which meets regularly in Colombo, does not deal with questions of capital aid. Its task is limited to promoting and co-ordinating technical assistance in the region.

(3) The Colombo Plan Bureau is located in Colombo and has four main functions:

(i) serving as a participating body at Consultative Committee Meetings and acting in an advisory capacity for the Meetings,

(ii) recording all the technical assistance given to the countries of the region under the Plan,

(iii) promoting intra-regional technician training,

(iv) disseminating information on the Plan as a whole.

(4) The Colombo Plan Staff College for Technician Education which is located in Singapore, was established in 1974 as the first 'multilateral' Colombo Plan Project. All 27 member governments are contributing in one form or another towards its operational costs. The College's main functions are to:

(i) undertake programmes in staff development and training for technician education staff;

(ii) conduct study conferences and courses for senior administrators in technician education;

(iii) promote and undertake research in the special problems of technician education and training within the region; and

(iv) provide advisory and resource services in technician education and training to countries both within and outside the region.

NEW DIRECTIONS IN VOCATIONAL GUIDANCE

REPORT OF A COUNTRY WORKSHOP

sponsored jointly by the Government of Pakistan and the Colombo Plan Bureau

ISLAMABAD,
PAKISTAN, 1976

The Colombo Plan Bureau, 12, Melbourne Avenue, Colombo 4,
Sri Lanka, (Ceylon)

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Shazada Saeed ur Rashid, Minister of State for Science and Technology, Government of Pakistan, delivering the Inaugural Address.

Dr. M. Ajmal, Secretary, Federal Ministry of Education, Government of Pakistan, making the Keynote Speech at the Inaugural Session.

INTRODUCTION

Most member countries in the Colombo Plan region had, in their earlier plans for national development, overlooked the importance of vocational and technical training in the promotion of economic and social welfare. Experience since then has shown that returns on other forms of investment cannot be fully realised in the absence of adequate resources of well-trained and competent manpower.

Against this background, the countries of the Colombo Plan region have become increasingly aware of the importance of giving high priority to vocational and technical training in their national development plans. They have also recognised that a national economic development plan specifying the broad objectives to be achieved in the sphere of economic and social development is a prerequisite for preparing a comprehensive and realistic national plan for vocational and technical training. Such a plan must be based on a comprehensive manpower survey of needs and resources.

The shortage of technical and skilled manpower at all levels in many of the countries of the region is largely attributable to the inadequacy of existing training facilities, including teachers, and the lack of well planned and properly organised training programmes to meet the current and anticipated requirements of development planning. The situation has, however, changed considerably during the past few years ; and in many countries of the region steps for developing vocational and technical training programmes on sound and systematic lines now form part of overall national development plans.

The Colombo Plan Bureau has been implementing an Intra-Regional Technician Training Programme for nearly a decade in order to serve as a catalyst in this process of change. An important feature of this Programme has been the National Seminars and Regional Colloquia held in different countries in the region. Following a suggestion made at the Consultative Committee Meeting held in 1972, the National Seminar Programme has been reviewed and strengthened by arranging Workshops of longer duration which could go more deeply into specific problems and produce enduring results. The first Workshop co-sponsored by the Colombo Plan Bureau was held in the Philippines in 1974 on the theme "New Directions in Vocational Guidance." The second such Workshop was held from 2 to 12 February 1976 in Islamabad, Pakistan, and was jointly sponsored by the Government of Pakistan and the Colombo Plan Bureau.

The objective of the Workshop was to prepare recommendations to the Government of Pakistan on a vocational guidance system which would be geared to the needs of the country while bearing in mind the inevitable constraints on the resources and personnel which could be made available in a developing economy.

The Workshop programme was concentrated on five important areas : organising a guidance programme, problems of placement, techniques of conducting occupational surveys research and statistics and the role of testing. The Workshop was attended by about 55 participants from the different divisions of the Government

and educational institutions from different parts of Pakistan. The core of the Workshop activity centred around group discussions and the Report of the Workshop reflects the intensive activity that took place during the Workshop. This Report of the Workshop has been prepared mainly for the use of those concerned with guidance work in Pakistan. However, it would also be of value to those officials in other countries of the Colombo Plan region which have similar situations and problems and are in the process of developing their guidance service.

The Colombo Plan Bureau wishes to record its deep appreciation of the co-operation and generosity of the Government of Pakistan in serving as host to the Workshop. The arrangements made were excellent as was the co-operation received from those officials who assisted. The Bureau's thanks are also due to the Governments of the United Kingdom, the United States and the Philippines and also to Unesco, the consultants, the resource persons and participants and all others who in one way or another contributed towards a very successful meeting.

ACKNOWLEDGEMENTS

The Colombo Plan Bureau wishes to place on record its sincere appreciation for the excellent co-operation it received from a number of persons and institutions who helped in so many ways to make the Workshop a success. Particular thanks are due to:

(1) The Government of Pakistan for permitting the Colombo Plan Bureau to stage the Workshop;

(2) Shahzada Saeed-ur-Rashid Abbasi, Minister of State for Science and Technology, Government of Pakistan for delivering the Inaugural Address;

(3) Mr. Malik Mohammed Jaffar, Minister of State for Science and Technology, Provincial Co-ordination and Cultural Affairs, Government of Pakistan for his Address at the concluding session;

(4) Dr. R. A. Shah, Joint Educational Adviser (Curriculum Wing), Federal Ministry of Education, and Co-Chairman of the Workshop, Miss M. B. Ahmed, Deputy Educational Adviser (Curriculum Wing), Federal Ministry of Education and Mr. Masood Ali Khan, the Bureau's National Correspondent for Intra-Regional Training for their active support, dedication and assistance in staging the Workshop;

(5) The Consultants and Resource Persons for presenting papers and taking active part in the proceedings.

Dr. R. A. Shah, Joint Educational Adviser (Curriculum Wing), Federal Minister of Education, and Co-Chairman of the Workshop presenting the Workshop Report at the Concluding Session.

Malik Mohammad Jaffar, Minister of State for Science and Technology, Provincial Coordination and Cultural Affairs, handling certificate to Dr. Patrocinio A. Toribio, Professor of Guidance, Philippine Women's University, Manuel L. Quezon University, Manila, while Dr. Aminul Huq, Adviser on Intra-Regional Training, Colombo Plan Bureau looks on.

REPORT OF THE WORKSHOP

The progressive implementation of the current education policies of the Government of Pakistan with the objective, *inter alia*, of providing more purposeful agro-technical education and the growing and increasingly diverse manpower requirements of the country's economy have highlighted the need to review the requirements of a dynamic vocational guidance system. On the initiative of the Government of Pakistan a Workshop on " New Directions in Vocational Guidance," jointly sponsored by the Colombo Plan Bureau and the Government, was held at the Curriculum Wing of the Ministry of Education of the Government of Pakistan in Islamabad from 2-12 February 1976. There were about 55 participants including representatives from the Ministries of Planning and Development, Manpower, Labour, Social Welfare, Health and Science and Technology, as well as representatives from Universities and other educational institutions from different regions in Pakistan. Dr. R. A. Shah, Joint Educational Adviser, Government of Pakistan, and Miss Leonore E. T. Storar, Director of the Colombo Plan Bureau, served as Co-Chairmen of the Workshop.

The objective of the Workshop was to prepare recommendations to the Government of Pakistan on a vocational guidance system which would be geared to the needs of the country while bearing in mind the inevitable constraints on the resources and personnel which could be made available in a developing economy.

Shahzada Saeed-ur-Rashid Abbasi, the Federal Minister of State for Science and Technology, inaugurated the Workshop on 2 February 1976. The address at the closing session of the Workshop on 12 February 1976 was delivered by Mr. Malik Mohammad Jaffar, Minister of State for Science and Technology, Provincial Co-ordination and Cultural Affairs. The texts of the addresses at the opening and closing sessions are appended to this report (Appendix 'A').

In his opening address Shahzada Saeed-ur-Rashid Abbasi referred to the plans of the Government of Pakistan for a massive shift from general education to purposeful and functional agro-technical education. The economy of the country demanded that those who came out of the educational and training institutions should be so prepared that they would be able to make a positive contribution to the agricultural and industrial development of the country. The Minister of State called upon the Workshop for a framework for more effective vocational guidance counselling and job placement services in Pakistan, which would enable the Government to prepare short, medium and long-term schemes together with the provision of the necessary resources, materials and instruments for their effective implementation.

The programme for the Workshop is set out at Annexe I. Discussions in the Workshop centred on six working papers prepared by consultant — experts, which were supplemented by oral comments, and also papers, prepared by resource persons. The papers presented in the Workshop are appended to this report (Appendix 'B'). The discussions were first conducted in four groups under broad

headings and subsequently the groups were reorganised to permit in-depth discussion of various aspects of vocational guidance and job placement. In addition visits were made to the Government College of Technology, Rawalpindi, and the Koh-e-Noor Textile Mills, Rawalpindi. A list of the participants and all those who assisted in the Workshop is attached at Annexe II.

The Workshop recognised the importance of an effective vocational guidance system both in the development of the right type of trained manpower to meet the changing needs of the economy and to reduce personal frustrations by assisting the individual to discover his or her potentialities and to lead a full life compatible with human dignity and personal satisfaction. The Workshop also recognised that to be realistic its recommendations for vocational guidance must take into account present conditions in Pakistan.

In the light of the papers presented and the subsequent discussion the Workshop agreed that to be effective, a guidance system would require a joint effort by the schools, training institutions, commerce, industry and the community at large with governmental support at both Federal and Provincial levels. It was considered that there was no dearth of talent in the country, but the problem lay in identifying and channelling the potential abilities.

The Workshop recognised that while various steps had already been taken to develop guidance systems, circumstances in Pakistan made it unrealistic to envisage the launching of fully functioning systems throughout the country reaching each individual. Vocational guidance could not exist in a vacuum, but must be developed in relation to the evolving educational and training systems and the expansion of job opportunities. In developing a vocational guidance system consideration must also be given to such factors as the high illiteracy rate attested by the fact that currently only about 10% of those aged 10 and above complete primary education and 3.2% complete high school education, and that, regardless of the potentialities and interests of the individual, the great majority of the people are drawn into family occupations, as self-employed or as unpaid family helpers, in agriculture, trade, commerce and other industries.

The Workshop did not, however, feel that these factors warranted any delay in setting up a vocational guidance system. Indeed it was considered essential to start developing such a system which would then be available for geographical and in-depth extension as circumstances and resources permitted. It was noted that while there was an over-supply of highly educated personnel in certain sectors in others there was a shortage of trained personnel which adversely affected the economic development of the country.

Against this background the Workshop made the following recommendations for consideration by the Government of Pakistan.

Organisation of a Guidance Programme

As a first step the vocational guidance system should be developed in selected urban areas and those rural areas in which it is planned to develop new

large scale enterprises within the next few years. Such a realistic approach would allow for the best use of limited resources of trained personnel and finance, while providing a springboard for a wider programme in step with developments in the educational and economic spheres. By developing the vocational guidance system on less than a nation-wide scale the control and adaptation, will be easier : continued feedback, based on experimentation and evaluation, will ensure effectiveness and relevance. The vocational guidance organisation at present operating through the Labour Department of the Punjab Government could provide a reference.

There must be a well planned, systematic approach to the organisation of the vocational guidance system. This requires effective and continuing co-ordination at the highest level between the Education, Manpower, Planning and Development, Industries, Agriculture, Social Welfare, Information and Finance Divisions at both federal and provincial levels with one division having overall responsibility. Such co-ordination and co-operation must be carried down to local level where there should be a close liaison between the school, the employment service and potential employers.

The objectives of the vocational guidance system were seen as :

(a) helping individuals educationally and vocationally to discover and develop their abilities and potentialities in relation to their environment ;

(b) guiding individuals to choose occupations according to their ability and interests geared to the economic situation ;

(c) helping to provide gainful employment to the largest number of people through development and manpower training.

For a more effective and economical means of developing vocational awareness and training in vocational skills, vocational guidance should be integrated in the educational programme of the school. The school curriculum should be geared to attainment of the wholesome development of the individual both academically and vocationally. A conceptual scheme showing the integration of vocational guidance in the educational system is attached at Annex III.

Training of Guidance Personnel

Those providing vocational guidance must be aware of training facilities and job opportunities and must be able to advise the individual and his family as to how these relate to his interests and potentialities.

While formal vocational and career guidance does not concern the primary school teacher, the training courses for teachers at this level should cover the need to prepare the child for life by creating an awareness of his dignity and worth and a knowledge of himself and the world around him within him in order to develop his capacity to make realistic decisions and adjustments.

Guidance personnel are necessary in middle and high schools. Great care should be taken in selecting them from among experienced teachers sensitive to the needs of young people. For these teachers there should be intensive specialised

training courses in the basic principles of vocational guidance, such as the integration of guidance into the educational system, knowledge of industry and the skills necessary to assess potentialities : extensive, formalised courses might ultimately be desirable but are not essential in the short-term for the functioning of an adequate vocational guidance system.

Occupation Information and Placement

Information about actual and potential occupations is not only essential for effective guidance but also basic to other governmental functions such as curriculum development and manpower training programmes. The project now being initiated by the Government of Pakistan to provide projections of manpower needs should be vigorously pursued. Descriptions of occupations in which a large number of people could be employed, and those vital to the economy should also be prepared. These descriptions should include information about minimum education, training and abilities required.

There should be the further, gradual development of a structured placement service for selected age groups both within and outside the school system to provide individuals and their families with details of job opportunities, the training required and other relevant information. The personnel providing this service could be trained through short courses.

Development and Application of Tests

Properly developed tests are an important source of information about the interest and abilities of the individual. The development of standardised tests of cognitive, perceptual, mechanical and psycho-motor abilities should be given priority. However, until further research has been carried out and vocationally orientated tests can be developed and validated for occupations, information on work experience and school performance should be utilized to the maximum extent possible in assessing abilities.

Research on tests should be performed following accepted professional standards. The present organisational unit devoted to test development and research in the Ministry of Education should be strengthened in order to co-ordinate effectively the research now under way. It would be desirable for fewer projects to be undertaken to allow greater concentration on those which are undertaken. Specific contracts for research projects should be issued and progress on these contracts monitored to ensure that the objectives and provisions of the contract are met. Projects should be allocated sufficient funds to allow the personnel working on the project to devote full-time to the research. As trained personnel and funds become available, the test development unit should assume an increasingly active role in research.

The test development research unit of the Ministry of Education should act as a clearing house to make available the research reports pertaining to test development in the country to those working in the area of testing and guidance.

Research and Evaluation

The expertise and resources of institutions of higher learning could be mobilized and utilized so that functional researches can be conducted which can be used as a basis in the organization of vocational guidance programmes. Institutional and individual researches at post-graduate levels may be conducted in such areas as :

- Information about different occupations,
- Work attitudes and job preferences of people,
- Minimum qualification requirements for different occupations,
- Evaluation of human and material resources that may serve as driving and restraining forces in the organization of the guidance programme.

Survey as a Method of Research

Well planned surveys should be used to obtain the information necessary for the proper functioning of the vocational guidance system. The terms 'survey' includes such activities as simple inquiries: scientific or quasi-scientific experiments investigations and action research as well as surveys themselves. All these methods of research might be used at various levels in the service of an on going programme of vocational guidance, at either a formal level using the expertise and resources of those involved in this work and experienced and qualified in one or other technical aspect of research or on a more informal level nearer to the action base where both guidance personnel and the young people themselves might be 'researchers'. Using 'Surveys' as the generic term it is essential that they should be well planned using a sequential framework which would be suitable for surveys large or small, simple or complex. The analysis of survey data, its interpretation and arresting presentation must be undertaken by those trained in these techniques. The other, less technical aspects of this work could be the responsibility of anyone engaged in the field of vocational guidance.

Training

Training must be made available at all levels, integrated with vocational guidance, which will allow for vertical and horizontal mobility according to the development of the individual. The training programme should be sufficiently flexible and responsive to the changes of industry, agriculture and commerce in order to cater for the changing needs in manpower. It should be organized on a modular basis. The vocational guidance should be extended to follow the progress of trainees and allow for re-orientation as appropriate. A corresponding credit system leading to a nationally accepted licence or certificate should be part of the system and should include equivalences.

Use of Mass Media

The mass media, especially radio and television, now reaching into most homes should be less fully harnessed to :

- changing social attitudes towards occupations which do not generally enjoy prestige such as blue-collar jobs although they are essential to the economy of the country and the welfare of its people;

— imparting information about job openings and self-employment opportunities ;

— popularising occupations which are needed for the new developments in industry ;

— disseminating information to the target population about the availability and nature of training ;

— stressing the importance of realistic career planning on the part of the individual and his family ;

— promoting on the part of the individual a sense of participation in the development of his country.

Funding

Necessary funds must be made available in order for the vocational guidance system to function effectively.

Malik Mohammad Jaffar, Minister of State for Science and Technology, Provincial Coordination and Cultural Affairs, Government of Pakistan, delivering his concluding address.

Miss Leonore E.T. Storar, Director, Colombo Plan Bureau and Co-Chairman of the Workshop, making her closing remarks.

A Working Group in Session.

ANNEXE I

WORKSHOP PROGRAMME

Monday, 2 February 1976

08.00 - 09.00 hours Registration.

09.00 - 10.00 hours INAUGURAL SESSION

Recitation from the Holy Quran.

Welcome by Dr. R. A. Shah, Joint Educational Adviser (Curriculum Wing), Federal Ministry of Education.

Introductions by Dr. B. I. Hashmi, Chief, International Relations, Economic Affairs Division.

Address by Dr. Mohammad Ajmal, Educational Secretary, Federal Ministry of Education.

Address by Miss Leonore E. T. Storar, Director, Colombo Plan Bureau.

Inaugural Address by Shahzada Saeed-ur-Rashid Abbasi, Minister of State for Science & Technology, Government of Pakistan.

Vote of Thanks by Miss M. B. Ahmed, Deputy Educational Adviser (Curriculum Wing), Federal Ministry of Education.

10.00 - 10.30 hours (Refreshments)

10.30 - 15.30 hours FIRST PLENARY SESSION

Theme : **" The Importance of Vocational Guidance in Promoting Manpower Development in Pakistan."**

Consultant : Dr. S. M. Aijaz,
Deputy Chief,
Education Section,
Planning Commission,
Islamabad.

Resource Persons : Dr. Ehsan Ullah Khan,
Assistant Professor,
Guidance & Psychology,
Institute of Education & Research,
University of the Punjab,
Lahore.

Mr. Moula Bux Qureshi,
Vice-Principal,
Government College of Technology,
Sind Industrial Trading Estate (SITE),
Karachi.

Open Forum
Lunch Break
Composition of Working Groups
Group Discussions :

" Organising the Guidance Programme "

- Needs in Organising a guidance programme
- Approaches in the organisational set up of the guidance programme
- Knowing the guidance personnel and their functions
- Selection and training of guidance personnel
- Planning of physical facilities
- Funding the guidance programme
- Knowing the guidance forms used in guidance activities

Tuesday, 3 February 1976

09.00 - 15.00 hours Group Discussions :

" Gathering pertinent information for each student profile "

- Tests and inventories
- Interviews
- Case studies
- Autobiographies
- Home visits
- Anecdotal records
- Parent-teacher conferences

Group Discussions :

" Promoting the guidance programme "

- Providing incentives
- Following up scheduled programme of activities
- Thrashing out problems
- Developing awareness of the assistance and co-operation needed from school officials and the community in strengthening the various guidance services
- Evaluating the guidance programme through problems check lists, pupil interviews, etc.

Recess

SECOND PLENARY SESSION

Theme : **"Problems of Placement in Pakistan"**

Consultant : Mr. M. Inamul Haque,
Director,
Swedish Pakistani Institute of Technology,
Karachi.

Resource Person : Lt. Col. Mohammad Zakaria,
Director,
Students Guidance and Counselling Centre,
Punjab University,
Lahore.

Open Forum

Wednesday, 4 February 1976

09.00 - 16.00 hours THIRD PLENARY SESSION

Theme : **"Techniques for Conducting Serveys for an Effective Vocational Guidance Programme"**

Consultant : Mr. Eric Lord,
H. M. Inspectorate of Schools,
London.

Open Forum

Resource Persons : Mr. Wadood Jilani,
Deputy Chief,
Manpower Division,
Islamabad.

Dr. (Miss) Iftikhar N. Hassan,
Professor of Education,
People's Open University,
Islamabad.

Theme : **"Developments in Vocational Guidance Training & Instruction"**

Consultant : Mr. T. J. Takats,
Unesco Technical Training Adviser,
Seoul.

Open Forum

Lunch Break

Group Discussions :

Preparation of Survey designs

How to use survey questionnaires and conduct interviews

Dynamic presentation of survey data

(a) Consolidation, organisation and treatment of survey data

(b) Interpretation of survey data

(c) Matching job applications to job openings

Gathering, preparing and compiling occupational and vocational information

19.30 hours — Dinner hosted by Miss Leonore E. T. Storar, Director Colombo Plan Bureau

Thursday, 5 February 1976

09.00 - 15.00 hours FOURTH PLENARY SESSION

Theme :	**"Developing Research in Vocational Guidance"**
Consultant :	Dr. (Ms) Patrocinio A. Toribio, Professor of Guidance, Philippine Women's University, Manuel L. Quezon University, Manila.
Theme :	**"The Role of Testing in Vocational Guidance"**
Consultant :	Mr. John A. Hawak, Department of Labour, Washington.
Resource Person :	Dr. (Mrs.) Iffat Dar, Private Psychological Consultant, 24, 35th Street, Shalimar 6 - 1. Islamabad.

Open Forum

Group Discussions :

"Development and application of practical tests"

Lunch Break

Continuation of group discussions

Friday, 6 February 1976

09.00 - 12.00 hours FIFTH PLENARY SESSION

Presentation of draft group reports by the Chairmen

Open Forum

Presentation of a Paper on:

"**Vocational Guidance for Manpower Development in Pakistan**" by Mr. Munawar Dean, Research Associate, Institute of Education and Research, University of Punjab, Lahore.

Organisation of participants into specialist groups.

Saturday, 7 February 1976

09.00 - 16.00 hours Discussion in Specialist Groups :

Surveys (Consultant : Mr. Eric Lord)

Test Developments (Consultants: Dr. S. M. Aijaz and Mr. John Hawk)

Manpower Assessment and Projection (Consultant : Mr. T. J. Takats)

Development of Vocational Guidance (Consultant : Dr. P. A. Toribio)

Placement (Consultant : Mr. M. Inamul Haque)

Lunch Break

Continuation of Specialist Group discussions

Sunday, 8 February 1976 Free

Monday, 9 February 1976

09.30 - 15.00 hours Visits to :

Government College of Technology, Rawalpindi

Koh-e-Noor Textile Mills, Rawalpindi

Lunch hosted by Koh-e-Noor Textile Mills at the Rawalpindi Club.

Tuesday, 10 February 1976

09.00 - 15.00 hours Discussions in Specialist Groups

In-service training (Consultant : Mr. Eric Lord)

Application of tests in non-academic settings (Consultants : Dr. S. M. Aijaz and Mr. John Hawk)

Assessing training needs (Consultant : Mr. T. J. Takats)

Development of Vocational guidance (Consultant : Dr. P. A. Toribio)

Counselling (Consultant : Mr. M. Inamul Haque)

Lunch Break

SIXTH PLENARY SESSION

Consideration and discussion of draft specialist group reports and draft group reports

Wednesday, 11 February 1976

11.00 - 12.30 hours SEVENTH PLENARY SESSION

Finalisation and approval of the Workshop Report

19.30 hours Dinner hosted by the Federal Ministry of Education

Thursday, 12 February 1976

09.00 - 10.00 hours CONCLUDING SESSION

Recitation from the Holy Quran

Address and Comments by Miss Leonore E. T. Storar, Director, Colombo Plan Bureau

Presentation of the Report of the Workshop by Dr. R. A. Shah, Joint Educational Adviser (Curriculum Wing) Federal Ministry of Education

Distribution of Certificates to participants

Address by Mr. Malik Mohammad Jaffar, Minister of State for Science and Technology, Provincial Co-ordination and Cultural Affairs, Government of Pakistan

Vote of Thanks by Miss M. B. Ahmed, Deputy Educational Adviser (Curriculum Wing), Federal Ministry of Education

10.00 - 10.30 hours (Refreshments)

LIST OF OFFICIALS, CONSULTANTS RESOURCE PERSONS AND PARTICIPANTS

Co-Chairmen

Miss Leonore E. T. Storar	—	Director, Colombo Plan Bureau.
Dr. R. A. Shah	—	Joint Educational Adviser, Ministry of Education, Government of Pakistan, Islamabad.

Co-ordinators

Dr. Aminul Huq	—	Adviser on Intra-Regional Training, Colombo Plan Bureau.
Miss M. B. Ahmed	—	Deputy Educational Adviser, Ministry of Education, Islamabad.

Liaison Officer

Mr. Masood Ali Khan	—	National Correspondent for Intra-Regional Training, Section Officer, Economic Affairs Division, Islamabad.

Consultants

Dr. S. M. Aijaz	—	Deputy Chief, Education Section, Planning Commission, Islamabad.
Mr. M. Inamul Haque	—	Director, Swedish Pakistani Institute of Technology, Karachi.
Mr. John Hawk	—	Department of Labour, Washington.
Mr. Eric Lord	—	H. M. Inspectorate of Schools, London.
Mr. T. J. Takats	—	Unesco Technical Training Adviser, U.N.D.P., Seoul.

Dr. (Ms) Patrocinio A. Toribio	—	Professor of Guidance, Philippine Women's University, Manuel L. Quezon University, Manila.

Resource Persons/Participants

Dr. (Mrs.) Iffat S. Dar	—	Psychological Consultant. 24, 35th Street, Shalimar 6/1, Islamabad.
Dr. (Miss) Iftikhar N. Hassan	—	Professor of Education. People's Open University, Islamabad.
Mr. Wadood Ahmad Jilani	—	Deputy Chief, Manpower Division 475, Shalimar 7/3, Islamabad.
Dr. Ehsan Ullah Khan	—	Assistant Professor, Guidance & Psychology, Institute of Education and Research. University of the Punjab, Lahore.
Mr. Moula Bux Qureshi	—	Vice-Principal, Government College of Technology, Sind Industrial Trading Estate (SITE), Karachi.
Lt. Col. M. Zakaria	—	Director, Students Guidance & Counselling Centre, University of the Punjab. Lahore.
Mr. Abu Bakr	—	Instructor, Government Training College for Men, Hyderabad.
Mr. Suleman Shah Afridi	—	Section Officer, Labour & Local Bodies Division, Islamabad.
Mr. Khawaja Habib Ahmad	—	Assistant Director of Education, Department of Education, Baluchistan, Quetta.
Mr. Kazi Ghulam Akbar	—	Instructor, Government Training College for Men, Hyderabad (Sind).

Dr. Ahmed Ali	—	Professor, Institute of Education & Research (Old Campus), University of Sind, Hyderabad.
Mrs. Razia Madad Ali	—	Assistant Professor, Lady Maclagan Training College, Lahore.
Ms. Iffat Almas	—	Director, Institute of Education & Vocational Guidance of Girls in Pakistan, Peshawar.
Mr. Saeed Anwar	—	Lecturer, Department of Education, Gomal University, D. I. Khan.
Mr. G. A. Bokhari	—	Department of Education, Institute of Education and Research, University of Baluchistan, Quetta.
Mr. Sabir Ali Bokhari	—	Deputy Director Education (General), Directorate of Public Institution, Muzaffarabad (Azad Kashmir).
Mr. Bashir Ahmad Chaudhry	—	Lecturer (Instructor), Federal College of Education, Islamabad.
Mr. Munawar Dean	—	Research Associate, Institute of Education & Research, University of the Punjab, Lahore.
Mr. Muhammad Hasan	—	Deputy Inspector of Schools, Directorate of Education, Northern Areas, Gilgit.
Dr. Rafia Hasan	—	Associate Professor, Department of Applied Psychology, University of the Punjab, Lahore.
Mr. Maqsood Hussain	—	Trained Graduate Teacher, Federal Government Boy's Secondary School No. 2, Islamabad.

Mr. M. A. Ihsan	—	Director, Swedish Pakistani Institute of Technology, Gujrat.
Dr. Muhammad Jamshaid	—	Principal, College of Education, University of Peshawar, Peshawar.
Mr. Javaid Kaisar	—	Lecturer, Department of Education, Gomal University, D. I. Khan.
Mr. Abdul Qayyum Kazi	—	Assistant Scientific Adviser, Science Policy Cell, S.S.T.R. Division, Islamabad.
Dr. Ahmed Noor Khan	—	Assistant Professor, Institute of Education & Research, University of Sind, Hyderabad.
Dr. Anwar Khalil Khan	—	Head, Department of Education, University of Baluchistan, Quetta.
Ch. Irshad M. Khan	—	Islamabad College for Boys, G—6/3, Islamabad.
Mr. Mohamad Aslam Khan	—	Principal, Government Vocational Institute, Khuzdor.
Prof. Mohammad Athar Ali Khan	—	Assistant Professor of Education, Government College of Education, Qasimabad, Karachi.
Mr. Mohammad Jamshed Khan	—	Assistant Director, Bureau of Curriculum Development, N.W.F.P., Abbottabad.
Mr. Muhammad Siddique Khan	—	Trained Graduate Teacher, Directorate of Federal Area Educational Institutions, Federal Government Boys Secondary School No. 8, Islamabad.
Mr. Mohammed Sulaiman Khaskheli	—	Section Officer (Technical), Education Department, Government of Sind, Karachi.

Mr. S. Talat Khurshed	—	Instructor, Federal College of Education, Islamabad.
Dr. D. M. Malik	—	Chairman, Department of Education, Gomal University, D. I. Khan.
Mr. Karim Bakhsh Mewati	—	Research Officer, Labour & Local Bodies Division, Islamabad.
Mr. Ashfaq Hussain Mirza	—	Assistant Professor, Department of Rural Sciology, University of Agriculture, Lyallpur.
Mr. A. G. Mufti	—	Joint Secretary, Ministry of Science & Technology, Islamabad.
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Mr. Gul Beg Khan Niazi	—	Assistant Headmaster, Federal Government Boys Secondary School No. 6, Islamabad.
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Mr. H. R. Qureshi	—	Officer on Special Duty, Health & Social Welfare Division, Islamabad.
Mr. Masood-ul-Hassan Qureshi	—	Head of Department (Mechanical), Government Polytechnic Institute, Quetta.
Dr. Abdul Rashid	—	Acting-in-Charge, Education & Vocational Guidance Centre, Institute of Education & Research, University of the Punjab, Lahore.

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Mr. Mohammad Sarwar	—	Officer on Special Duty, Federal Ministry of Education, Islamabad.
Prof. Syed Nazir Shah	—	Chairman, Board of Intermediate and Secondary Education, Mirpur (Azad Kashmir).
Sayed Sher Shah	—	H.S.T., Directorate of School Education, Training College for Men, Hyderabad (Sind).
Mrs. Kalima Shams	—	Senior Research Officer, Health & Social Welfare Division, Ministry of Labour, Health, Social Welfare & Population Planning, Islamabad.
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Mr. M. A. Syed	—	Chief Vocational Guidance Officer, Vocational Guidance Organisation, Punjab, Lahore.
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Mr. Mohammad Anwar Beg	—	Specialist Educational Research, Central Bureau of Education, Islamabad.

Mr. Nayeemullah Khan	—	Assistant Educational Adviser, Curriculum Wing, Ministry of Education, Islamabad.
Mr. Ruhul Amin	—	Assistant Educational Adviser, Curriculum Wing, Ministry of Education, Islamabad.

COLOMBO PLAN BUREAU

Mrs. Sitomi Fernando	—	Librarian

A CONCEPTUAL SCHEME SHOWING THE INTEGRATION OF VOCATIONAL GUIDANCE IN THE EDUCATION SYSTEM

Class Level	*Goals and Objectives*	*Content*	*Skill Level*
Professional	Individual self-satisfaction and satisfactory contribution to the country's economy.	Professional Education Specialized Occupational skills	Professional skills
XII Higher Secondary XI	Cognitive : Knowledge about various fields of professions and occupations. Affective : Devotion and sense of responsibility towards the selected occupation. Psycho-Motor : Learn advanced skills.	Commerce Agriculture Polytechnics General Education	Advanced skills
X Secondary IX	Cognitive : Develop knowledge of weaknesses and strengths related to different occupations. Affective : Develop right attitude by giving dignity to work. Psycho-Motor : Develop more advanced skills.	General courses Commercial Agriculture Industrial Home Economics	Intermediate skills
VIII Elementary I	Cognitive : Knowledge of vocabulary and facts about different occupations ability to distinguish among occupations. Affective : Develop interest and love for work. Psycho-Motor : Develop simple manual skills.	Industrial Arts Agriculture Home Economics Communication skills Mathematical skills arts and crafts	Exploration and Orientation to Basic skills

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INAUGURAL SESSION

WELCOME ADDRESS

by

Dr. R. A. SHAH*

I have great pleasure and honour to have this opportunity to welcome you to the Inaugural Session of the National Workshop on " New Directions in Vocational Guidance " which is being organised jointly by the Ministry of Education, Government of Pakistan, and the Colombo Plan Bureau. This is the second Workshop on the theme which the Colombo Plan Bureau has co-sponsored with a member country. The first being the one held last year in the Philippines and it is a coincidence that this is the second National Workshop on Vocational Guidance and Counselling held in Pakistan, the first one having been held at national level in 1974 at Abbottabad. While more than 30 participants of high calibre representing the fields of education and industry and professional bodies in the country are attending the Workshop, the resource persons include consultants graciously provided by the Governments of Great Britain, the Philippines, the United States of America and by Unesco, officers of the Colombo Plan Bureau and the experts obtained through the courtesy of the various Federal Ministries, the Planning Commission and the Provincial Governments in the Federation of Pakistan. Your presence here indeed indicates your support of and participation in our development effort. We would like to continue our mutual collaboration and co-operation. I would like to take this opportunity, once again, to extend to you all our very warm and cordial welcome. The Workshop that we have now is to focus on Vocational Guidance whereas the first Workshop we had in Abbottabad focussed mainly on educational guidance. I once again welcome you, and thank you for your kind presence. I look forward to an eventful Workshop.

**Joint Educational Adviser (Curriculum Wing), Federal Ministry of Education, Islamabad.*

INTRODUCTION

by

Dr. B. I. Hashmi*

Although the Colombo Plan region is characterised by an abundant labour force with much under-employment and unemployment, there is insufficiency of certain essential types of craftsmanship that are characteristically important for economic development. The fundamental reason for this perpetuating dilemma is a known functional system of education and an out of gear vocational training for the existing pool of manpower. The level and content of education and of skills are not always compatible with the requirements of modern industrialisation and development. The technical and vocational transformation of manpower have not been geared to the needs of the national labour market nor a low cost approach has been evolved for training and improving the quality of craftsmen. The direct manifestation of which has been a major brain drain from the Colombo Plan region as well as the failure to create a meaningful balance in the technocratic framework of the national labour market. The failure to create a meaningful employment appears to be the most tragic failure of development. It is therefore essential that in an effective programme of vocational education training is worked out with a view to achieving at least some of these fundamental objectives. First, transforming labour force from traditional to the modern factor within the framework of national priority and thereby optimising the rate of development; second, decreasing capital inputs necessary to bring about such a transition which are otherwise in such a great scarcity in the Colombo Plan region ; third, minimising further addition to the structure of unemployment ; and fourth visible pay off for the trainees after a reasonably short period of time. It is heartening to see that the developing member countries of the Colombo Plan region have started attending seriously to the vocational aspect of manpower development, but it should be recognised that we have a lot to learn from experience and expertise of the developed regional members and as well as the non-regional developed members especially the United Kingdom and the United States. I am pleased to know that the Colombo Plan Bureau has been the pioneer in the field of technical assistance to the developing countries of the region and has been fully seized of this vital aspect of training manpower. It has not only established a Staff College for Technician Education and appointed an Adviser on Intra-Regional Training, but has also been vigorously sowing and spreading ideas through arranging National Seminars, conducting Regional Colloquia and holding Country Workshops. I am proud to say Pakistan is also actively collaborating in this effort and have hosted in the past a National Seminar and a Regional Colloquium. This Workshop is another in the series and I hope it will enable the participants to exchange their views and experience in this vital field of human and socio-economic development and would lead to finding new directions in vocational planning.

**Chief, International Relations/Economic Affairs Division, Islamabad.*

ADDRESS

by

Dr. Mohammad Ajmal*

On behalf of the Government and the people of Pakistan I extend a warm welcome to all our guests from abroad and from within the country.

The concept of Guidance, like all other concepts is changing rapidly. With fresh conceptualization of the problems of education, the current canons of guidance also need a profound and extensive review. The new directions or the "new guidance for vocational guidance" have to be evolved in the light of the new psychological insights and the demands of the new social order. Vocational Guidance needs a larger conceptual framework in which the socio-economic conditions are also relevant.

Perhaps one of the many new directions of Vocational Guidance is to refrain from guiding, not to succumb to the obsession to help others because quite often it is the emotionally helpless who seek refuge in a passion for helping others. Perhaps our students, young men and women need greater understanding, more human contact and sympathy than help. Through our understanding we can kindle the light of selfguidance in them. This is a serious problem that we in the Third World face today. Our colonial past has done great damage to our self-esteem. Through understanding we can listen to the hidden turmoil that compels our young men and women into misdirected patterns of behaviour. It is by listening, and listening with the third ear that we can guide.

Vocation means a calling, a voice of nature demanding to be heard. In the third world countries, one has to remove prejudices against quite a number of vocations. Fine Arts provide us with a large number of vocations, crafts and skills open up an infinite area of adventure — excitement and usefulness. But the social taboos against these vocations are many and strong. We have to dissolve these taboos so that human personality can come into its' own. Education does *not* give one the privilege to be emotionally distant to others, to be a white-collar snob. Any education worth the name must nurture the virtue of humility, the capacity for coming close to the people. Yes, Vocational Guidance must be there, but we must also try to remove the stigma that attaches to some vocations and false prestige that goes with others.

One of the functions of Vocational Guidance, it is said, is to remove frustration. Our youngmen today complain that they are frustrated. But the question is, who is not? We are all frustrated. One of the joys of living is the fact of frustration. Education means tolerance of frustration, tolerance of ambiguity, and tolerance of conflict. Those who complain above frustration perhaps seek a paradise, where

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*Secretary/Federal Ministry of Education, Islamabad.

there is no struggle, no effort. Those who complain about their suffering and their unhappiness are the ones who feel that they have to depend upon others. When they complain they reinforce their dependence on others. This sense of dependence has to be overcome and removed. We have to create an educational ethos in which our young men and women outgrow environmental support and develop self-support.

Self-support cannot be developed in a vacuum. It must discover goals in society which enrich the individual as well as society. The Education Policy of the People's Government of Pakistan explicitly states :

> " Building up and nurturing the total personality of the individual, dynamic, creative and capable of facing the truth as it emerges from the objective study of reality, an individual able to comprehend fully the nature of technical and social change and having deep concern for the improvement of society."

I hope that the experts who have been brought together by the Colombo Plan Bureau, and the Federal Ministry of Education in this Workshop will deliberate on these problems and develop new directives of Vocational Guidance, perhaps in a non-directive way.

ADDRESS

by

Miss LEONORE E. T. STORAR*

On behalf of the Colombo Plan Council for Technical Co-operation, it is my very pleasant privilege to welcome you all to the opening of the Workshop on " New Directions in Vocational Guidance " which is being jointly sponsored by the Ministry of Education of the Government of Pakistan and the Colombo Plan Bureau.

We in the Colombo Plan Bureau feel very much at home here in Pakistan. Pakistan was one of the small band of founder members of the Colombo Plan when it was launched about twenty-five years ago. Since then Pakistan has been host to two of the annual meetings of the Colombo Plan Consultative Committee of Ministers, the first time in 1952 and again in 1966. Over the years the Colombo Plan Bureau has also been fortunate in having a number of Pakistanis of distinction holding key international posts in the Bureau. Most recently there has been Mr. Irshad H. Khan as Adviser on Intra-Regional Training and Mr. S. A. Hussaini is at present the Principal Information Officer.

One of the Bureau's task has been the promotion of training within the Colombo Plan countries of South and South-East Asia. A number of advantages are seen in intra-regional training such as that at the same cost more training can be provided than if the training takes place elsewhere, that trainees can adjust more quickly to conditions similar to those in their home countries, and that they are more likely to return to their own countries to put their newly acquired expertise to work when it is most needed rather than succumbing to the brain drain.

Under the Colombo Plan about 19,000 students a d training places have been provided to date in Colombo Plan countries in South and South-East Asia, about half of these places being financed by host regional governments and the remainder under third country arrangements. Training outside the region does of course continue and about 86,000 trainees and students have been so accommodated under the Colombo Plan. There is, however, no doubt about the interest within the region in promoting local training resources.

The Bureau has endeavoured to carry out its task of promoting regional training by arranging a series of national seminars, workshops and regional colloquia. It was earlier perceived that a most serious obstacle in the development process in the region was the lack of technicians. The lure of the degree had produced a surplus of engineers in some countries. Those men were taught to be designers. Most countries had good craftsmen. They were the builders. What was, and still is, lacking were the operators and technicians, the men who could put the design into use and keep the system running efficiently. The Bureau has therefore concentrated on technical training at the middle-level.

* *Director, Colombo Plan Bureau.*

To this end the Bureau has assisted a number of regional countries to organise national seminars and workshops in which representatives of industry, education and government are brought together to discuss co-operation in technical education, to assess manpower needs and to plan the vocational and technical education most suited to the requirements of the national plan of development. National seminars have already been held in thirteen countries in this region. The first Workshop on the theme " New Directions in Vocational Guidance " under the broad programme of promoting vocational and technician education was held in the Philippines in 1974. The idea of holding such workshops with a view to further improving Vocational Guidance Services had originated at the fifth Colloquium on " Intra-Regional Technician Training " held at Karachi in 1973, when it was suggested that the Bureau consider the possibility of arranging such meetings.

Following the success of the Philippines Workshop the Government of Pakistan consulted the Bureau about arranging a similar meeting in Pakistan. It is following from this that we are all gathered here today. The objectives of this Workshop are :

To focus attention on the need for a planned and co-ordinated approach to vocational guidance at the national level ;

To provide a forum for a frank exchange of views amongst those who are concerned with vocational guidance services in the country ;

To explore ways in which the vocational guidance services could be made more effective to meet the needs of the country ;

To identify the main problems that arise in developing vocational guidance services in the country and to discuss possible solutions within the framework of Government policies ;

To highlight the role that national and international agencies can play in developing the vocational guidance services in the country.

It is our hope that this Workshop will be of some assistance over the organisation and improvement of Pakistan's vocational guidance services so that these services may be made even more effective in meeting the steadily diversifying needs of an expanding economy. I am confident that the two Pakistani experts, Mr. M. Inamul Haque and Dr. Saiyid Mohammad Aijaz, along with the four overseas consultants Mr. T. J. Takats of Unesco, Mr. John A. Hawk of the United States, Mr. Eric Lord of the U.K. and Dr. (Ms) Patrocinio A. Toribio of the Philippines will be able to make valuable contributions. We are indebted to them and to their respective Governments and Organisations for making their services available.

I should also like to acknowledge the whole-hearted support which we have received from the Government of Pakistan and the Steering Committee headed by Dr. R. A. Shah as well as all those other officials whose co-operation has made this Workshop possible.

I know I express the feelings of all the participants and guests assembled here when I say that we are honoured that the Honourable Shahzada Saeed-ur-Rashid Abbasi, Minister of State for Science and Technology has found it possible to be present here to inaugurate this Workshop. It gives me great pleasure in inviting the Honourable Minister to address the meeting.

INAUGURAL ADDRESS

by

Mr. SHAHZADA SAEED-UR-RASHID-ABBASI*

It gives me great pleasure to associate myself with this Colombo Plan Workshop on "New Directions in Vocational Guidance". Indeed a National Workshop on this theme could not have been held in Pakistan at a more appropriate time. After a period of political and economic uncertainty that came in the wake of the nations struggle for the re.tora ion of democracy we are now under the People's Government entering into an era of stability and consolidation. We cou'd not take a long range view of our problems during the last four years because of a number of national and international factors. Now that the situation has normalized and we are in the midst of planning for future years, it is necessary to look at the roles of human and material resources in the development of the country, in a correct perspective.

The success of our efforts to build a happier and prosperous future for our people will depend on our ability to make fuller utilization of material as well as human resources. The greatest asset of a developing country is its human capital. In the final analysis it is the quality of human potential that determines the efficiency of any system. To maximize return from capital investment it is necessary to ensure supply of trained and motivated workers who have the necessary aptitude for and interest in their work. Placem.nt of the right man fo the right job is necessary for both efficiency and job satisfaction of the workers. The organization of vocational guidance services thus furthers the broader objective of development — happier, fuller and more prosperous life for the people.

The concept of guidance is not something new ; what is new is the approach and technique which have become specialized. In this age of specialization, it is necessary that youth plan their educational career with an eye to the prospects. Unaided by proper tools of guidance and without up-to-date information about trends in the employment market, parents and teachers can no longer render the assistance that they could. That is why in most of the advanced countries of the world today, the task of aiding the individual in making significant choices is performed systematically through organized guidance services.

A developing country has to make great sacrifices to allocate its scarce capital for the development of education. It is accordingly very important that the educational system should meet country's requirement for trained manpower. We can ill-afford to spend our resources on developing manpower whose skills are not immediately required. At present we have surpluses in certain fields and shortages of critical manpower in others. As major policy decisions and reforms introduced by the present government begin to make full impact, important changes

*Minister of State for Science and Technology, Government of Pakistan.

are bound to take place in the employment situation in the country. The pace of industrialization is likely to be quickened and demand for certain type of education is likely to increase at a faster rate than facilities can be created. A quicker pace of national development can create significant imbalances unless the traditional patterns of occupational choice undergo major changes. The younger generation, therefore has to be prepared to accept certain changes apparently desirable.

The Education Policy (1972-80) aims at meaningful and purposeful education by effecting a massive shift from aimless general education to purposeful and functional agro-technical education. The economy of the country demands that those who come out of the educational and training institutions be so prepared that they can make positive contribution in boosting up the agricultural and industrial productivity of the country.

The People's Government adopted the Policy of changing education from an elite privilege to an equal expectation pronouncing that this opportunity would belong to every citizen regardless of race, religion and birth. The People's Government further resolved to democratize education and usher in an era of universal literacy at the earliest. At the same time, the Government and the people of Pakistan are conscious of the compelling need to promote higher education, science and technology.

What we aim at is that a boy who may drop out of the school after passing Class VIII should carry with him adequate skills to return to his local or ancestral vocation as a better farmer or craftsman and that a boy who may drop out of the school after passing Matric (Class X) should be ready to be absorbed in the socio-economic structure of the country as a good middle-level technician or worker. Further, we realise that while expanding education it must be related, in its form and content, to the nature and scope of the economic development of the country and to the employment opportunities that may become available with the expansion and development of the economic base.

The Government and the people of Pakistan highly appreciate the moral and material assistance given by International Agencies in the nation's endeavours for development. The record of the Colombo Plan Bureau in this regard is creditable. The Colombo Plan Bureau deserves our gratitude for taking keen interest in organizing vocational guidance services in Pakistan and for co-sponsoring this Workshop.

I am happy that the objectives of the Workshop include identification of the problems that may arise in developing vocational guidance services in the country and discussion of the possible solutions of these problems. The task set before the Workshop is preparation of short, medium and long term schemes, resource materials and instruments for introducing and improving educational and vocational guidance, counselling and job placement services in Pakistan. I understand that the resource persons and the participants of the Workshop have been requested to suggest and devise strategies, materials and instruments required for implementing the proposed schemes.

I feel that the task before the Workshop is extremely important and I am confident that the participants from all parts of Pakistan working with the consultants from the Philippines, Britain, U.S.A. and Unesco will be able to prepare insightful and feasible strategies and materials for training teachers in modern methods of educational and vocational guidance and counselling and for actual guidance and counselling service.

I now inaugurate the Workshop and wish it all success in its deliberation

VOTE OF THANKS

by

Miss M. B. AHAMED*

On behalf of everybody here, I thank the Honourable Minister for the philosophic insight he has given for the economic and social realities to which he drew our attention and its definite assignment that he set before the Workshop. I assure him on behalf of all the participants and consultants that we will not disappoint him too much. We will try to do the best we can. I would like to express our grateful thanks to the Honourable Minister for his Key-note Address and the inspiration and for sparing his time to be with us. Our thanks to the Education Secretary for the psychological insight and the stimulating address which was delightful and refreshing. Now thanks to the Director and the Adviser on Intra-Regional Training of the Colombo Plan Bureau for the assistance in connection with the planning and organisation of this Workshop and for everything that has gone before into the preparation of the Workshop and everything that will be done upto the Report and in implementing the schemes and the recommendations. We are now indebted to their Excellencies, the Ambassadors of the friendly countries who are also members of the Colombo Plan for their ever-increasing support and goodwill. Now thanks to the Governments and the people of Britain, the Philippines and the United States of America and also to Unesco for providing consultants for showing us New Directions in Vocational Guidance Services. Now thanks to our Federal Planning Commission in whose auditorium we are enjoying this wonderful company. Thanks also to other Ministries, the Provincial Governments, Universities and Boards of Education and, very important, each individual scholar and individual officers so willing and so eager to help us to facilitate the work and to support us always. Of course, we have not been able to give them that much opportunity that they could do so, that is our failing, but we are extremely grateful to each one of them for the eagerness on their part. Now thanks to all our guests present here for finding time out of their very busy schedule. We are indebted to you and do not like to pay off the debt and thus lose the connection. We love to remain indebted to you all and pray for your health and happiness and for many more fruitful meetings in future.

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* *Deputy Educational Adviser (Curriculum Wing), Federal Ministry of Education, Islamabad.*

CONCLUDING SESSION

ADDRESS

by

(Miss) LEONORE E. T. STORAR*

I know I speak for all the participants in the Workshop in expressing our appreciation to you, Honourable Minister, for having found time in your busy programme to be present at the Closing Session.

I would also like to take this opportunity to thanks the Ministry of Education and the Economic Affairs Division and in particular Dr. Mohammad Ajmal and Dr. R. A. Shah for having made this Workshop possible. I might add Dr. Mohammad Ajmal had hoped to be present but has unfortunately been prevented doing so. I also cannot let this occasion pass without warm mention of Miss M. B. Ahmed whose dedication to the Workshop was only matched by her unfailing kindness to myself and my other colleagues from overseas. I should also like to express my appreciation to Mr. Masood Ali Khan.

A Workshop can only be as good as its participants. We are indebted to the Curriculum Wing of the Ministry of Education for assembling such an impressive group of participants from all over Pakistan. They freely drew on their knowledge and experience for the benefit of all both inside and outside the Workshop discussions. From the opening day it was clear that all were deeply convinced of the importance of vocational guidance and placement services as a means both of developing the full potential of the individual and also enabling the people of Pakistan to play their maximum role in the economic development of their country.

In the lively discussions which took place I was impressed by the way in which the Workshop did not ignore the problems, but lent all efforts to tackle these in a constructive manner. All made vigorous contributions in the discussions and the indefatigable participants have not only produced the main report but also a number of more detailed reports on specific aspects of a vocational guidance system, which are now available to the Curriculum Wing of the Ministry of Education.

It will be for the Government of Pakistan to decide, after studying the Workshop Report, what international assistance under the Colombo Plan might be sought for the development of guidance and placement services in this country. I should however like to point out that through the medium of the Workshop Pakistan will herself be making a contribution under the Colombo Plan, since copies of the Workshop report will be made available to the other twenty Colombo Plan countries in South and South-East Asia as well as to the six Colombo Plan Governments outside this region. Copies will also be available to interested international organisations.

** Director, Colombo Plan Bureau.*

ADDRESS

by

Mr. MALIK MOHAMMAD JAFFAR*

I am much pleased to hear the reports and comments presented by Miss Leonore E. T. Storar, Director, Colombo Plan Bureau and Dr. Rashid A. Shah, Joint Educational Adviser of the Ministry of Education, who acted as Co-Chairman of the two-week Workshop on New Directions in Vocational Guidance sponsored and organised jointly by the Colombo Plan Bureau and the Ministry of Education, Government of Pakistan. I am equally happy to hear the insightful observations of Education Secretary, Dr. Mohammad Ajmal, about the Workshop, its objectives and recommendations.

The Workshop Team has, indeed, accomplished substantial and significant "Work" which, obviously, could not be possible in the short period of two weeks but had it not been for the imaginative and ingenious planning of the basic resource materials prepared by the consultants, resource persons and participants of the Workshop before the Team actually met to analyse, assess and synthesize the observations, ideas and suggested problem solutions.

I feel that observations and suggestions regarding problems and proposals of manpower development in Pakistan reviewed and brought to the focus by the National Workshop Team should make us feel more concerned and anxious about the urgency of tapping national and international resources for implementation of those proposals of the Workshop which may be feasible.

It seems that the objectives of the Workshop, at this stage, have been well achieved. It has focussed attention on the need for a planned and co-ordinated approach to vocational guidance at the national level. It certainly provided a forum for a frank exchange of views among those who are concerned with provision of vocational guidance services. It did explore the possible ways and means of providing effective vocational guidance service to meet the immediate and long-term needs of the country. It has tried to identify the main problems that may arise in developing vocational guidance services, and has discussed possible solutions to the problems. The role that national agencies can play in developing the vocational guidance services in the country has also been well highlighted. The deliberations and the solutions suggested by the Workshop Team will be useful for Pakistan and I feel they may be found useful by some other countries as well.

The zeal for providing vocational guidance service to all, I am sure, would survive through the odds that must be faced in such an undertaking. I urge determined and sustained efforts on the part of all those concerned and committed to this cause.

**Minister of State for Science and Technology, Provincial Co-ordination and Cultural Affairs, Islamabad.*

In conclusion, I thank the Colombo Plan Council for Technical Co-operation and the Colombo Plan Bureau for their interest and assistance in organising this Workshop in collaboration with the Ministry of Education, Government of Pakistan. I feel confident that the Colombo Plan Bureau will continue to take increasing interest in the development plans of Pakistan and would extend assistance for providing Vocational Guidance Service to students enrolled in the educational institutions, and also to others outside the formal education system.

VOTE OF THANKS

by

Miss M. B. AHAMED*

It is my very pleasant duty to say that we are most grateful to the Honourable Minister for sparing his time for us out of his extremely busy schedule. We know about the competing demands on his time. His presence amongst us has been a source of great inspiration. Next I say on behalf of everybody present here that we are grateful to our Educational Secretary, who although could not be present with us today had sent us a message of encouragement. Had he been here his Address would have been very refreshing and recreating for all of us. Now I have to discharge my very pleasant duty assigned to me in various ways over the times by all participants of the Workshop. Whether they participated as consultants, as resource persons or as secretarial assistants and this duty is to thank the the Director of the Colombo Plan Bureau, Miss Storar, the Adviser on Intra-Regional Training of the Colombo Plan Bureau, Dr. Aminul Huq and Mrs. Siromi Fernando also of the Colombo Plan Bureau. We all know they are affectionate, kind and dynamic and when it concerns their own job they are excellent. I would fail in my duties if I do not thank the Economic Affairs Division and particularly the officer of the Economic Affairs Division dealing with this Workshop, Mr. Masood Ali Khan. Let me most gratefully thank you all, consultants, resource persons and participants of the Workshop. Our thanks to all guests. We appreciate they really took trouble in this bad weather also and they did find time to be with us which may not have been easy for them. We felt greatly encouraged and well supported by their presence with us today. Our thanks to all ministries, all departments, all organisations and individuals who helped us and encouraged us and supported us in our endeavour.

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Annexure 1

ISSUES AND PROBLEMS IN ORGANISING VOCATIONAL GUIDANCE SERVICES IN PAKISTAN

by

Dr. Saiyid M. Aijaz*

Industrialization makes the world of work so complex that the matching of the available with the needed skills cannot be left to market mechanism alone. A serious imbalance in the demand and supply of trained manpower not only reduces production and slows down the pace of industrialization causing economic difficulties but also increases unemployment and unleashes forces of discontentment creating serious socio-political problems. As a traditionally agrarian society takes major strides towards industrialization it experiences recurring manpower shortage in critical fields. This is more so because of the desire of the third world to effect transition from agrarian to industrial economy in the shortest possible period. To accelerate the pace of this transition the society needs to adopt bold socio-economic policies modifying its wage structure, educational priorities, and fiscal and monetary policies.

One of the areas requiring attention is the development and management of human resources. Vocational guidance, which seeks to assist the individual in choosing and preparing for a vocation, can help in the development and utilization of human resources. While, on the one hand, it prevents wastage by matching the aptitude of the individual with the requirements of the job, on the other hand, it helps the individual attain self-actualization through the development of his talents. By helping the individual to discover and develop his aptitudes, talents and interests, vocational guidance enables him to achieve optimal level of personal happiness and social usefulness. Vocational guidance thus serves the needs of society not by sacrificing the individual at the altar of society but by encouraging the individual to develop socially useful skills.

Pre-conditions for the Success of Vocational Guidance Programme

The need for vocational guidance is universally recognized though in some countries the need may be stronger than in others. The chances of success of a national vocational guidance programme is dependent on the existing socio-politico economic realities. Accordingly, the degree to which the pre-conditions for the success of vocational guidance efforts are fulfilled must be carefully ascertained before

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The views expressed in this paper are those of the author and do not necessarily reflect the policies of the Planning Division.

formulating a programme. Such an assessment would help in devising measures which are likely to deal with the situation arising from the non-fulfilment of necessary pre-conditions. Any programme not based on a correct assessment of socio-cultural pressures is bound to create more problems than it solves.

The guidance programme is basically democratic in character. It is based on the recognition of the right of each individual to choose what he wants to become. This right can only be exercised meaningfully if children are treated with dignity and respect both at home and school. Since in our homes and schools children are neither encouraged nor permitted to make important decisions for themselves, the vocational guidance programme should take cognizance of this fact.

Industrialization calls for specialization and creates demand for educated, technical and professional manpower at all levels. This demand leads to shift of manpower from traditional, agriculture-based professions to technical, managerial and executive jobs. The changing pattern of the distribution of civilian labour force calls for planned effort at proper selection and training of the needed manpower. In Pakistan, there has been a slow, imperceptible change in the development of civilian labour force between 1951 to 1971. Over 58% persons of 12 years and above are still engaged in agricultural pursuits as against 59% in 1961 and 65% in 1951. There has been some increase in the employment capacity of manufacturing industry (from 10% in 1951 to 14% in 1961 and 15% in 1971), construction industry (from 1% in 1951 to 2% in 1961 and 4% in 1971). The absorption capacity of trade, finance, insurance and real estate, which remained at 7% from 1951 to 1961, has now increased to 11%. Both supply and demand of specialized manpower has to increase at a faster pace to make a vocational guidance programme necessary as well as operative. Another important feature of the civilian labour force in our country is the fact that about 80% is either self-employed or is an unpaid family helper. This trend is more pronounced in agriculture and commerce where 89% and 90% respectively are classified as self-employed or unpaid family helpers. In manufacturing, construction and transportation industries 72%, 71% and 62% respectively belong in this category. As long as a vast majority of people continues to be absorbed in family professions in agriculture, trade, commerce and other industries either with little or no formal education, the scope and effectiveness of a vocational guidance programme would continue to be limited.

Education opens up unlimited possibilities for choosing the career of ones liking by increasing both the demand and supply of trained manpower. No basic change in the distribution of civilian labour force can take place without spread of education at the first two levels. The need for vocational guidance services increases with the universalization of elementary education. As diversification of studies in varying degrees is introduced in high schools it becomes necessary to evolve some method for channelizing students into different streams. As school system which caters to only a small segment of the population at the primary level seriously limits the scope of vocational guidance at high school level. Those who are not inducted into the school system or who leave without completing primary education are automatically earmarked for the lowest of vocations irrespective of their aptitude or talent. Only the small proportion completing school education becomes avail-

able for vocational guidance. Such a situation is not conducive for optimal utilization of human resources and a vocational guidance programme operating under these limiting circumstances can only be marginally effective. In Pakistan, only 10% of persons aged 10 and above complete primary education and only 3.2% complete high school education. Thus the possibility of identifying talent and choosing profession according to one's aptitudes and interests is highly limited.

Another pre-condition for the success of a vocational guidance programme is the availability of facilities for pursuing individual interests during childhood and adolescence. An educational system based on the respect for the individual recognizes individual differences and provides for the development of different interests, aptitudes and talents. Unless varying interests and talents are encouraged, nurtured and cultivated from the very beginning there would be little available for vocational guidance workers to discover and channelize at a later stage. Till recently, there was only nominal diversification of studies at the secondary level and hence students entering post-primary stage had very little scope for pursuing studies according to their liking. The proposed introduction of agro-technical, home economics and commercial streams in the high school would provide an opportunity and create a need for vocational and educational guidance. If proper guidance is not provided at this stage the purpose of diversification of studies would be defeated and the majority shall continue to pursue college bound courses of studies.

Another pre-condition for the implementation of a vocational guidance programme is the availability of a wide variety of acceptable jobs. In western countries, manual workers gained a reasonable level of respectability. Since the eighteenth century Industrial and French revolutions, workers have continued to wield increasingly greater political power and have continually improved their standard of living, and terms and conditions of service through the activities of labour unions. Universalization of primary education and raising of the level of compulsory education, partly at the insistence of labour unions, have helped to raise the educational level of workers. All these factors have not only helped to confer social respectability to a wide range of jobs but have also eliminated socio-cultural stratification on the basis of vocation. It is only in such a climate that the individual feels free to choose vocations on the basis of his aptitude and inclination. The range of acceptable jobs in industrialized nations is really wide, allowing for free exercise of option.

The availability of wide range of possible jobs encourages the individual to pursue his inclinations and choose only jobs that suit his temperament and aptitude. The individual knows that no matter what interests and talents he develops there would be some respectable job for which his peculiar pattern of abilities would be an asset. Hence, the freedom of the individual to discover and develop his talents is not limited by the apprehension that the development of a certain talent would either limit his employability or land him in socially unacceptable careers. Under these circumstances, parental pressure on the youth to prepare for careers of their choice looses its intensity. The resultant social mobility also helps in the evolution of an integrated society. In developing societies, sicio-cultural stratification caused

by wide divergence in the educational background and economic status of those pursuing different jobs limits the scope for identifying and developing talents.

In Pakistan the range of socially acceptable jobs becomes narrower and narrower as one proceeds from school to college and thereon to university. Family tradition and parental preferences colour the choice of career. Socio-cultural stratification based on wealth, education and profession has replaced the caste system. Prejudices and taboos against some careers are so strong that many educated people prefer less paying government jobs to more lucrative offers elsewhere. White collared jobs continue to be in demand even though they are becoming less and less paying. Poor working conditions and lack of amenities of modern living in industry and on farms are some of the discouraging factors. No parent would easily let his child choose a career in professions other than medic, engineering, and administrative and managerial services. Parents plan the educational career of their children with certain prestigious jobs in mind without any regard to the aptitude and temperament of their children. A national guidance programme alone can neither enhance social respectability of jobs at the lower end nor change established stereotypes and prejudices. However, diffusion of correct information about the prospects, security and service conditions under the existing labour laws would go a long way in correcting this situation.

The existing situation highlights both the need for and the problems in the implementation of a guidance programme.

Earlier Guidance Efforts in Pakistan

Vocational guidance programme seek to help the individual in gaining insight into his own abilities with the help of psychological devices for identification of aptitude and interest. These guidance tools have not yet gained social acceptance partly because no systematic and planned effort has been made to develop, adapt or standardize these devices in Pakistan. More importantly, the validity of these psychological devices is questioned by parents who are unwilling to let these tests make important decisions effecting their children. Some time back the Board of Secondary and Intermediate Education, Karachi, attempted to channelize students into Arts, Science and Commerce streams at higher secondary level on the basis of aptitude tests. For this purpose the Board developed some tests and organized guidance services. The project has since been abandoned. The achievements of this project and the causes for its failure/abandonment should be looked into so that future attempts may be based on an understanding of the difficulties and problems encountered by the Board.

A pilot project for the introduction of guidance services was put into effect in the comprehensive school of the Punjab. Full-time guidance workers trained at the Education Extension Centre were appointed for this purpose. With the passage of time the scheme lost its driving force and it now exists only on paper. Useful lessons could be derived from a study of this project.

A Vocational Guidance Cell was established in 1973 at the Manpower and Employment Wing of the Punjab Directorate of Labour to provide vocational guidance services and to develop psychological tests. The Directorate proposes

to establish its cells at Lahore, Rawalpindi, Lyallpur and Multan. These cells shall provide vocational guidance services through Employment Exchanges. This vocational guidance project also provides for the adaptation and translation of relevant psychological tests and vocational interest inventories. It is too early to make any assessment of this project.

Guidance, counselling and placement services were also introduced at some universities. It was hoped that by providing for close teacher student relation the programme would have a salutary effect on student indiscipline. These guidance centres did not really develop fully partly because the scope for educational and vocational guidance becomes limited when the academic career reaches its last stage. The proper time for providing such a service is the secondary school. Some placement service could however, be provided at the universities. Even here the limitations imposed by the selection procedure adopted by the largest employer—the government—leaves little scope for university placement service.

Guidelines for the Future

The failure of earlier effort might have been due to non-fulfilment of necessary pre-conditions or lack of systematic planning. It appears that educational and vocational guidance services were introduced in the past at the wrong end, for ulterior objectives and without the necessary pre-conditions having been met. A sound system of guidance must first be developed in secondary schools before it is started in universities. Its basic orientation and purpose should be to help the individual and not to check student involvement in politics. Before launching any new programme, efforts shall have to be made, in collaboration with other agencies, for the creation of necessary pre-conditions. For this purpose an integrated approach for the development, management and utilization of manpower resources needs to be adopted. Moreover, the non-availability of essential tools of guidance also made earlier attempts ineffective. Accordingly, work on the development of the basic tools of vocational guidance, namely testing devices and vocational information, should be taken up well in advance of the introduction of vocational guidance services. The training of vocational guidance workers should also be carefully planned. The careful preparation of the ground work should precede the launching of any future programme of vocational guidance.

A comprehensive national guidance programme working in close collaboration with other agencies should aim at :

(i) better retention through the primary classes and increased flow into the middle and secondary school ;

(ii) introduction of compulsory education, at least in urban areas in the first instance ;

(iii) popularization of the various technical streams being introduced at secondary level ;

(iv) creating consciousness among parents and students of the need for early career planning ;

(v) increasing the use and supply of objective testing devices ;

(vi) collection and diffusion of vocational information ;

(vii) preparation of a comprehensive dictionary of available vocations ;

(viii) formalization and systematization of available informal training facilities ;

(ix) removal of prejudice against vocational and technical jobs in industry and commerce ;

(x) a more equitable wage distribution through raising the minimum wage level and providing better working conditions and other amenities, so that these jobs gain in respectability ;

and (xi) raising the prescribed level of education and training for more semi-skilled and skilled jobs.

Phasing of the Programme : The fulfilment of above conditions would require a series of actions by a number of government agencies. Since this would take considerable time, a number of preparatory steps can be taken in the meantime. A national vocational guidance programme should be carefully planned and phased over a number of years so that necessary ground work is done before the introduction of guidance services. In the first phase, the preparation of guidance tools should be taken in hand. A dictionary of vocations should be compiled for the use of guidance workers and career handbooks should be prepared for the use of students. These career handbooks should describe jobs of all levels available in different fields, educational preparation and training necessary for entry at each level, emoluments, prospects for promotion and other benefits available to employees. Similarly, the task of developing psychological devices for the assessment of intelligence, aptitude and vocational interests should be taken in hand. Simultaneously, students, teachers and parents should be made conscious of the need for early career planning by organizing career days in schools. Pakistan Television Corporation has produced a few good documentaries which can be effectively used for this purpose.

In the second phase, work should be continued on the development of testing devised and preparation of vocational information material besides starting training of vocational guidance workers. The aim of the training programme should be to make a large number of teachers and school administrators guidance oriented besides training the required number of guidance workers.

In the third phase, vocational guidance services should be introduced in secondary schools. These services should be gradually expanded to colleges and ultimately to universities.

Machinery for Implementation: Success in the execution and implementation of any programme is dependent upon the evolution of effective machinery. However, the organizational mechanism should grow and evolve with the passage of time and progress of work. Proliferation of organizations with overlapping functions and responsibilities is not conducive to efficient working. The objectives can be better realized by clear delineation of responsibilities and co-ordination of activities. The preparation of career handbooks, occupational dictionary and testing devices can be entrusted either to some existing organizations or "paper" institutes can be

established for this purpose. For co-ordinating the activities of these organizations and for deciding other policy issues, a consultative, policy-making body can be constituted. The secretarial assistance to this body can be provided by the Education Ministry. During the second phase, the training of guidance oriented teachers and administrators can be provided at training institutions including Education Extension Centres. For the organization and supervision of guidance services to be introduced during the third phase it may become necessary to create some organizational mechanism.

In view of current resource constraint and priorities in Education and Training sector, it might be difficult to launch an expensive vocational guidance scheme. Economy and efficiency demand that objectives of the vocational guidance programme should be achieved more by activizing existing organizations than by establishing newer ones.

The problem of integrating and co-ordinating the activities of existing organizations/ministries would be central to the success of the scheme. This is the challenge facing our administrators, planners and educators and it is to this task that the participants of the workshop should now address themselves.

Annexure 2

ORGANIZATION OF VOCATIONAL GUIDANCE PROGRAMME IN PAKISTAN

by

DR. EHSAN ULLAH KHAN*

Background

In the present article the problems of organization of Vocational Guidance in Pakistan will be discussed briefly and general strategy for dealing with them will be proposed.

In present days a deep realization exists for an organized manpower planning to cope with the gigantic demands of industry and urbanization in the country. Before Pakistan came into existence main working population in this part of the world either served the needs of agricultural economy or was placed in the offices for clerical or petty administrative responsibilities. So much so the manpower engaged almost in the entire spectrum of vocations served the foreign interests so far as the national development was concerned.

Any Vocational Guidance Programme in Pakistan should, from the very outset, visualize national objectives and its ideology side by side its commitment to international requirements.

Ideology of Pakistan

To state the ideology of Pakistan in great Quaid's words—"the creation of a State of our own was means to an end and not the end in itself. The idea was that we should have a state in which we could live and breathe as free men and which we could develop according to our own lights and culture and where principles of Islamic Social Justice would find freeplay." This provided for the need of greater opportunities for greater number of Pakistanis. On industrialization the Great Quide further elaborated that "If Pakistan is to play its proper role in the world to which its size, manpower, and resources entitle it, it must develop industrial potential side by side with its agriculture and give its economy an industrial bias." Present Government of Pakistan has realized this spirit in its latest policy of economy and of education. Thus from the very beginning great emphasis was placed on scientific and industrial development keeping in view need of upholding our independence.

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Objectives of Vocational Guidance

In pursuance with the achievement of national objectives the process of industrialization in Pakistan rapidly opened avenues of big employment opportunities for the people. This was in line with the national endeavour to increase the resources of Pakistan. Amidst this process of exploiting human and natural resources the nation found an emerging complexities in the world of work on the one hand and on the other in the preparation and training of suitable manpower to play the proper productivity roles. This was the time when need for an organized counselling and Guidance Programme was felt. In 1959 National Commission on Education stated the need for counselling and Guidance services in Pakistan in the following lines:

"A system of guidance and selection in modern education is made necessary by the differences in human abilities on the one hand and the growing specialization in the jobs and functions of a highly complex society on the other---. In other words it derives from the need of a society with a complicated structure composed of individuals with specialized and differentiated abilities."

Education and Organized Guidance Programme

Vocational Guidance is a help provided as part of the Guidance Programme of Schools. Vocational Guidance is provided to an individual to select a gainful job or vocation, to get necessary preparation for it and performing it with success and continuous progress. This Programme, as a matter of fact, is to supplement the efforts of formal educational system for the preparation and exploitation of both human and natural resources. It is therefore suggested that keeping in view the national developmental plans in general, and the components of agro-tech based industrial economy in particular a comprehensive Vocational Guidance should be organized. This may be started as a joint venture of the Ministry of Education and the Labour Ministry.

Manpower Planning and Vocational Guidance

Conventional connotation of Vocational Guidance is still very popular amongst counsellors and educators around the world. This defines Vocational Guidance in three steps :

(i) Analysis of the prospective employee;

(ii) Analysis of the job aspired for by him;

and (iii) Synthesis of the both above (i) and (ii) in order to arrive at a sound decision for one to join the Vocation.

For the developing country like Pakistan this function of Vocational Guidance appears to be little restricted in its scope. Because the objectives of planning and organizing any Vocational Guidance will not only select suitable personnel for appropriate available jobs, but to help growing population of the country to develop in such a manner as to gradually, or according to the need of the time, become mature in its outlook not only for a particular vocation as such but for variety of conditions to suit its potentialities. For this purpose it may be suggested that in the develop-

mental stages of our youth their education to be vocationally directed. Though in this process number of strategies would require to be used in order to exploit their possible potentials. For better and ultimately choiced placement of the manpower the entire vocational opportunities with all their requirements to be made known to all parents, teachers and those responsible for helping manpower planning and development. Vocational development should go hand in hand with the manpower needs of the country. Minimum discrepancies between occupational choices of school population and the occupational and vocational distribution of our employed population would ensure lesser number of educated unemployed. Suitably managed Vocational Guidance programme of our educational institutions, from elementary to higher levels, could go a long way in solving this problem of educated unemployed on the one hand and the dearth of suitably educated personnel on the other. Vocational Guidance can establish clearing houses for various agencies by maintaining records on informations and providing regular follow-up Vocational Counselling.

Vocational Counselling

Vocational Guidance programme will be organized and developed on the basis of this realization that everybody is not born or developed to perform every job and to take up every vocation, but most people have the capacity to do many things about equally well. But this state of affairs usually create problems of choice and selection. More over this problem is aggravated due to the specific socio cultural and economic conditions which are now in the process of rapid change in Pakistan. A significant shift in occupational groups is being felt. The number of total jobs has sufficiently increased. These conditions would need an efficient service of Vocational Counselling both for individuals and in groups at various stages of their vocational development. This Vocational Counselling will play an important role for the development of manpower on national level. This will ensure reliable knowledge about and proper distribution of their :

(a) abilities,
(b) interests,
(c) aptitudes,
(d) handicaps,
(e) family traditions,
(f) social taboos and other environmental opportunities.

World of Work in Pakistan and the Youth

The requirements of world of work in Pakistan like other countries cannot be separated from the desires and aspirations of its people for earning and production for creative pursuits for the :

(a) Economic viability ;
(b) Social uplift ;

(c) Psychological ; and

(d) Educational implications for the nation. Of course for appropriate vocational development of the youth an exhaustive plan for the organization and administration of Vocational Guidance Services needs to be constructed.

Problems of Youth and Vocational Guidance

Through an organized Vocational Guidance programme our youth can be helped to grow with confidence in their pursuits of attaining intellectual, social and vocational maturity. The youth in their forming years are likely to develop problems of alienation, finding themselves without any aim, ignorance about future (specially in terms of their earning capacity). Sometimes the youth could have faulty thinking about Vocational choices. Some of them think that 'WORK' is the fate of 'inferior' persons. Some youth run after false respect and spend their valuable time in pursuit of a particular career. Some lack realism about ultimate goals. Inconsistancies and uncertainties about vocational choices become most of the time a great problem of a young student which can adversely affect his personality.

Vocational Guidance programme, if organized with definite objectives of overall development of the Pakistani youth, is going to provide help in their growing a emotional and behavioural problems besides their orientation to the world of work.

PROPOSED PROGRAMME FOR ORGANIZATION OF VOCATIONAL GUIDANCE IN PAKISTAN

The primary function of the Vocational Guidance organisation will be to obtain factual position with regards to guidance needs of the population. Factual informations about the characteristics of prospect clients and the nature of the vocational opportunities will be gathered through original research techniques specially designed with reference to the Pakistani conditions. At various structural levels which are being proposed at the end, different kinds of surveys will be helpful to collect factual information for utilization in the process of Vocational Guidance. Such data can form a useful help for the programme if collected through agricultural and industrial concerns, and also from the employment agencies side by side from educational institutions.

Exposition of Surveys

Any Vocational Guidance Programme must provide for the following surveys :

(i) Talent ;

(ii) Differential abilities ;

(iii) Interests ;

(iv) Aptitudes ;

(v) Training facilities in both Government and private enterprises.

Basically these data may be collected on local levels under the small units of organization of Vocational Guidance so that after administering the services relevant follow-up of its utilisation could be made. Cumulative records maintained in the educational institutions for each student must provide for the entries of such information as they may be used for these surveys and other research for Vocational Guidance purposes. Data collected from different employing agencies throughout Pakistan may be mimeographed or printed in the form of handbooks and provided to each Vocational Guidance Counsellor.

Survey of the current and future prospects of job opening will also be needed using specially the technique of job analysis.

Objective Tests

Survey in the talent and differential abilities will need series of objective tests of psychological and educational nature including interests intellectual abilities, and differential aptitudes, achievement batteries. These information will serve the information and counselling service of the Vocational Guidance Programme.

Vocational Guidance for the Parents

Vocational Guidance programme must also organise a section which is equipped with such arrangements as to impart Vocational Information to the parents. This will help them to understand students' abilities, interests and to look into the related job opportunities which are available. Even at home small children can have opportunities where generic interest in occupation is aroused. Parents with professional help would see that children's vocational interest is not made limited.

Vocational Guidance for Elementary Schools

Primary or elementary school should see that students are thought dignity of labour and respect for the workers. It should :

(a) develop positive attitude for all fields of work ;

(b) develop an awareness of variety of skilled jobs ;

(c) help children to answer such questions as to satisfy their curiosity in various occupations.

Vocational Guidance for Secondary Schools

Vocational guidance service when organized in secondary school level should provide students with an opportunity to become informed of their real abilities and personal qualities.

A strong educational and occupational information cell of the Vocational Guidance Service of an high school will help students review and appreciate the world of work in general and acquaint them with the overall occupational pattern.

Tentative formulation of Vocational choices by the college bound students and final decisions by the terminating students at high school is possible at this stage.

For both terminating and college bound students Vocational Guidance service can provide the following information :

(a) to learn about broad fields of work ;

(b) to see the relationship to these fields to curriculum choices ;

(c) to obtain information about specific employment ;

(d) to understand and utilise the means for obtaining accurate and up-to-date information about occupations ;

(e) to appreciate the significance and scope of vocational planning.

Particularly in the tenth class the Vocational Guidance will see that students are helped in getting opportunity to workout locational plans for themselves.

Functions of the Vocational Guidance Counsellor

Vocational Guidance Counsellor will see that he has efficient plans to provide the following :

(i) As a trained counsellor to work as in-charge of School Guidance Committee under the Chairmanship of Headmaster ;

(ii) Has the means and material of occupational information ;

(iii) To administer and interpret objective test data about abilities, interests and aptitudes ;

(iv) To prepare a profile for each student on above information to supplement the school cumulative record ;

(v) Individual and group counselling on Vocational Choices and Planning;

(vi) Counselling with parents.

Curriculum and Vocational Guidance

The organization and administration of Vocational Guidance can be more effective if in general for each school at least :

(i) has one course to be offered in occupations ;

(ii) within school subjects efforts should be made to introduce one unit of vocational implications of the course concerned ;

(iii) visits to factories, business and other industrial concerns be planned for the students ;

(iv) speakers as representatives of various occupations to be invited to address and have discussion with students.

VOCATIONAL GUIDANCE LIBRARY

Each organised Vocational Guidance unit in the school employment exchange in the college or university research centres, or in the secretariat administrative office of education, there should be an equipped library for the literature on :

(a) various types of material for Vocational Guidance ;

(b) occupational titles and abstracts ;

(c) reference materials from abroad and from all important agencies in Pakistan.

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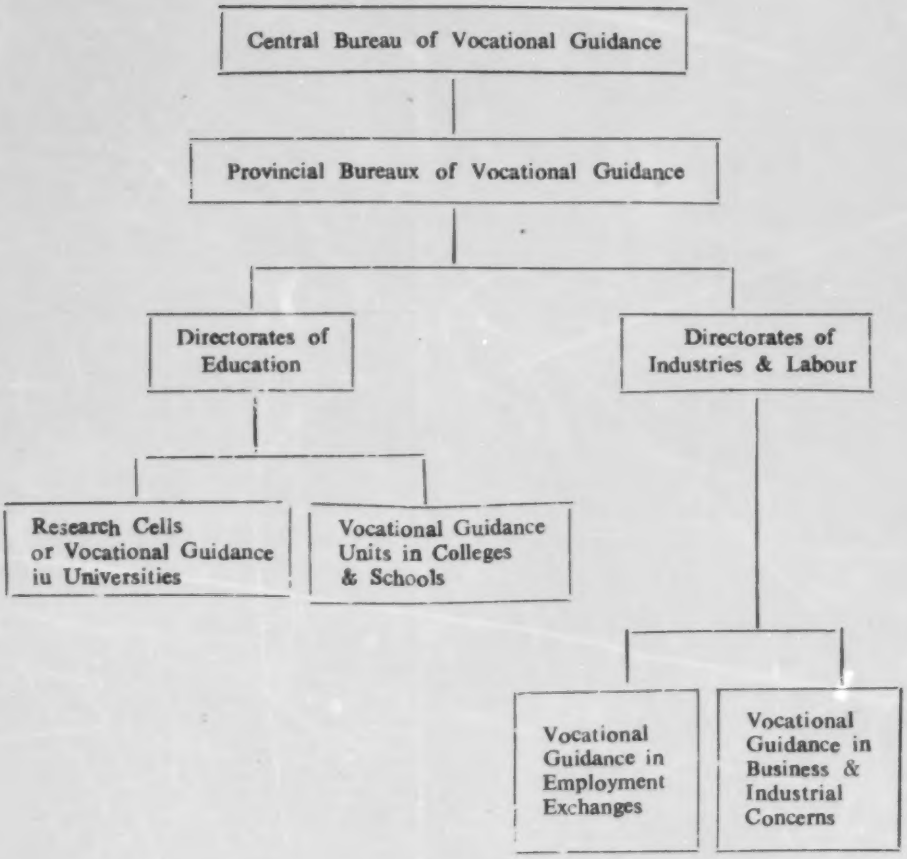
Proposed Plan for Vocational Guidance Organizational Set up in Pakistan


Central Bureau of Vocational Guidance
Provincial Bureaux of Vocational Guidance
Directorates of Education
Directorates of Industries & Labour
Research Cells or Vocational Guidance iu Universities
Vocational Guidance Units in Colleges & Schools
Vocational Guidance in Employment Exchanges
Vocational Guidance in Business & Industrial Concerns

IMPORTANCE OF VOCATIONAL GUIDANCE IN PROMOTING MANPOWER DEVELOPMENT IN PAKISTAN

by

Mr. MOULA BUX QURESHI*

Introduction

Vocational guidance is concerned with the problems and techniques involved in choosing an occupation and becoming adjusted in it. Vocational guidance like vocational education had its origin in the changing nature of work. The development of vocational guidance has been due to the efforts of individuals and organisations interested in the problem of workers and prospective workers. The relationship of vocational guidance to the efficiency of work stimulated vocational educators to acquire some proficiency in vocational guidance to enable them to counsel more intelligently with vocational students. Man's choice of occupation prior to industrial revolution was influenced by such forces as heridity, tradition and superstition. With advent of machine age however the number of vocations increased markedly and workers had more and more opportunities for occupational choices. The following factors governed the choice of individuals for a particular occupation :

(a) Personal data ;

(b) Self-analysis ;

(c) Persons own choice and decision ;

(d) Counsellors analysis ;

(e) Outlook in the vocational field ;

(f) Iuduction and advice ;

(g) General helpfulness in fitting into the chosen work.

The definition of vocational guidance has changed from time to time but in 1954 the Committee on Research and Publication of the American Vocational Association suggested " Vocational guidance is the process of assisting individuals to understand their capabilities and interests to choose a suitable vocation and to prepare for, enter and make successful progress in it." Subsequently vocational education has been regarded as a part of vocational guidance programme because of the reference to giving information relative to preparing for and progressing in an occupation.

Importance of Vocational Education in Pakistan

Pakistan is a developing country. Like all developing countries the nation has realised the need for increased productivity. This productivity is vital both in

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the Industrial and Agricultural Sectors. The modern development based on socio-economic considerations has revealed that great emphasis should be laid on vocational education and manpower planning. The vocational education deals with the vocational industrial education which aims at the education of skilled workers and the tradesmen in the industry, is aimed at producing skilled workers but it is clear that technical and vocational education comprises the most important activity in the trading of high level manpower in the country. The purpose of this paper is to throw some light on the importance of vocational guidance and its tremendous import on promoting manpower development in Pakistan. We shall also study the various problems that are encountered in this particular field. As a result it is necessary to discuss the remedial measures and to remove the various bottlenecks. It will also be necessary to work out the needs of the technical manpower for the execution of development schemes and to suggest most important strategies and guidelines for achievement of maximum results in the vocational education.

Need for Vocational Education

With organised planning and devotion the resources of the country can be converted into a quantity and variety of goods. With this quality the people of developed nations have maintained a standard of living for beyond the most fantastic dreams of their fore fathers. We here in Pakistan have to learn a lot from the advanced countries. And the end is not yet in the sight. Scientists are constantly discovering new products and processes. And from these discoveries will come new plastics and chemicals, improved transportation devices, new source of power and many other devices and services for the improvement of standard of living. We have to organise the techniques of mass production and increased productivity per worker efficient business management and the methods of distributing profits. The successful use of most of these factors and techniques is conditioned by the educational programmes and procedures. Workers and prospective workers who are responsible for, or responsive to those success factors are in need of education and training that will enable the industry and business to keep pace with the increasing demands for consumer goods. It is also recognised that the education of workers in becoming more and more important and at the same time more difficult in a social order characterised by the highly mechanised process of present day industry. Presently we do not have a variety of agencies sponsoring these vocational education programmes. In majority of the cases these programmes are either sponsored by the education department or by the labour department. Slowly and gradually the in service apprenticeship programmes are getting more and more popular. These programmes are designed for pre-employment training and the training on-the-job for youth and adults and for semi-skilled, skilled technical and professional workers. The courses are offered in a wide variety of occupations both as an integral part of general educational institutions, and the institutions, separate and apart from general education.

Institutions offering Vocational Courses

The vocational courses mentioned in appendix I and II are offered at the following institutions in the country :

(1) Government Polytechnic Institutes.

(2) Government Vocational Institute for Boys and Girls.

(3) Technical Training Centres.

(4) Swedish Pakistani Institute of Technology, Karachi and Gujrat.

(5) Y.M.C.A. Technical Institutes, Karachi and Lahore.

Apart from the above institutions some major industrial organisations of the country have already started in-service apprenticeship programmes in their respective organisations.

Vocational Technical Education

In recent times a need has developed for workers trained in occupation that require more technical knowledge than is needed for a trade and skill that is required for a profession. This area of work known as vocational technical education or training, involves the carrying out of experimental or production procedures which have been planned by professional engineers or scientists. Consequently the diploma holder technicians produced in Polytechnic Institutes are also covered under the term "Vocational".

The demand for workers educated for vocational technical occupation has increased greatly during the past few years and educational programmes in all the technical institutes have been developed to meet this need.

No doubt the industrial development in Pakistan has taken place during the last decade but the unique honour of establishing the country's first steel mill goes to peoples government. Similarly Heavy Industrial Complex at Texila and a number of sugar and fertilizer factories are being established by the present regime. A well organised full-time apprenticeship programme has been launched by the authority of Steel Mill Corporation. It is also obvious that the success of all these national projects depends upon the training of manpower and as such the importance of vocational guidance is rightly felt. Although Apprenticeship Ordinance of 1962 has been promulgated but much of the success of the programmes depends upon the attitude of industries sponsoring the apprenticeship.

Vocational Agricultural Education

An agricultural revolution having many of the characteristics of the Industrial revolution is gradually taking place during the present Peoples Government in Pakistan. The Government has encouraged the mechanisation of farming and efforts are being made to ensure all facilities to a farmer working in the rural areas as 80% of the population of the country come from rural area who live on agriculture.

The interest shown by the present Government in introducing the agro-technical courses at the Secondary School level will go a long way in providing a basis for studying and understanding the basic principles of vocational education aimed at

increasing the agricultural production and producing skilled labour force to cater needs of agro based industries. The increase in agricultural output and the products of agro based industries is of paramount importance for the people of this country. It is also hoped that after the completion of Tarbela Dam the country will achieve self-sufficiency in food provided full attention is paid on mechanisation of the farming. In view of this fact it has become all the more necessary to produce skilled farmers who are familiar with the use of modern agricultural equipment. The Government has already placed orders for the import of large quantity of tractors for this purpose.

It has therefore become necessary to establish Agricultural Vocational Institutes in the rural areas of the country. Since the Government has already exempted the small land owners from the land revenue and other taxes, it is expected that these land owners will also show keen interest in training some of their workers in the relevant vocational fields. The proper results achieved will enable the present-day farmer to produce more food, feed, fibre oil per acre and per farm worker.

Problems affecting the Development of Technical and Vocational Education and Suggested Remedial Steps

Before proceeding to set up the strategies for the fifth Five-Year Plan it would be desirable to discuss some factors responsible for the retarded growth of technical and vocational education programme. Some of the vital problems are narrated below along with suggested remedial measures :

(i) **Limited Facilities**

In majority of the technical institutions of the country the facilities have become limited. Most of the equipment has become out dated and it cannot cater to the needs of present day industry. Simultaneously there has been shortage of space and furniture also in majority of these institutions. The drawing hall facilities and the laboratory facilities have become inadequate. Similarly the shortage of Gas and Water supply.

Keeping in view the present financial position of the country we should make the maximum use of existing facilities. Wherever possible the old and worn out equipment be replaced. Efforts should be made to improve the general services.

(ii) **Shortage of Teachers**

It has been widely recognised that the ultimate quality of the teacher. Rapid expansion of technical and vocational education have brought to focus the need for proper development, motivation and utilisatton of teachers. Teachers' Training Programmes have therefore been arranged by various organisations.

(iii) **Defective Examination System**

The proper emphasis is not laid on the practical training. Moreover the examination system have undergone such rapid changes that they have

failed to be effective. The examination system should be such that there should be maximum stress on the practical training of the students. This system should ensure punctuality of the students and systematic hard work. This system should eliminate the use of the unfair means at the examinations.

(iv) **Shortage of Text-Books**

There is a great dearth of locally published text books. There is a great difficulty in procuring foreign books for want of foreign exchange. The present Government indeed deserves credit for setting up National Book Foundation which will ultimately cater to majority of our needs in this respect. Adequate incentive be provided to experienced teachers for writing text-books. These incentives should be in the form of cash payment, grant of advance increments and in exceptional cases through accelerated promotions. Equal emphasis should be placed on the preparation of Workshop and Laboratory manuals which are so important for systematic practical instructions.

(v) **Defective Curricula**

The curricula does not meet the existing demand of labour market. It should therefore be revised accordingly.

(vi) **Lack of Co-ordination in Vocational and Technical Education**

At present there is no link between vocational, technical and engineering education. In order to attract talented students to technical sector the facility for higher education at every stage should be provided. The Credit for introducing Bachelor of Technology Programme exclusively for the diploma holders also goes to the present government.

(vii) **The Lack of Placement and Follow-up**

The placement and follow-up of the students is an essential service in a complete vocational guidance programme. For this purpose a student is left entirely to the mercy of the institute in which the student is being trained. Placement is a process involving :

(1) preparation in which the individual is conditioned for the job, (2) induction into new situation and (3) encouragement on the job. This suggests that placement is not merely finding a job for an individual but is essentially an education. There are no placement facilities around most of the institutions nor any placement agencies are available. This result in deterioration of the skill of the workers.

(viii) **Pay Status and Service Condition of Teachers**

The tremendous amount of expenditure incurred on Technical and Vocational education may be wasted unless adequate incentive are provided for the persons to enter the most critically needed teaching profession. In-

dustries and other nation building departments offer more lucrative pay scales and better status services conditions than educational institutions. This has caused great frustration amongst the teacher community and good hands are not coming forward to join education. Even the best type of equipment and physical facilities will prove worthless in the hands of disinterested and frustrated teachers. Recently Middle East has attracted a good number of skilled workers and engineers from Pakistan. They also offer excellent pay scales. This has resulted in quitting the jobs by a large number of experienced teachers. If the pay status and service conditions of the technical teachers are not suitably revised, the situation is likely to go out of control very soon.

(ix) **Lack of Transport Facilities**

There is a very acute transport problem particularly in big cities. Because of this in many cases the students are not able to reach the institutions in time. This is directly affecting their performance. This problem too needs immediate attention.

CONCLUSION : What has been missing in our efforts so far appears to be a lack of serious and deliberate strategy for development. The manpower and employment objectives and targets included in the successive Plans have neither been backed by the will and determination to attain them, nor by carefully worked out policies and action programmes, nor by adequate and effective organizational arrangements within the Government to co-ordinate and develop manpower and employment oriented policies and programmes, to evaluate their progress and ensure their implementation.

Our continuing pre-occupation in the past has been the growth of GNP, which was supposed to bring about improvement in the manpower and employment situation, as a sort of by-product ; but despite healthy growth rates experienced by the country as a result of two decades of development planning, the desired goal in the employment field has not been achieved.

Our over-emphasis on economic growth has also led us to the neglect of devising adequate manpower planning machinery and develop reliable manpower statistics programmes ; while economic planning bodies were set up quite early and strengthened and improved from time to time at the national and provincial levels and in major organizations of the Government and procedures were developed and refined for preparation, approval, progressing and evaluation of development projects, policies and programmes through Central and Provincial Development Working Parties, Executive Committee of National Economic Council and National Economic Council, no such arrangements were made for manpower and employment planning. Similarly, while substantial time and resources were devoted to collection and refinement of statistics in national accounts, trade, money and banking, savings and investment, etc., no such concern was shown for improvement of manpower, employment statistics.

The past failures draw attention to the need for adopting an employment oriented approach to economic development, in which employment should be moved from the periphery to the centre of concern with development. In such an approach, the objective should be to achieve full, productive and freely — chosen employment, as advocated by the ILO, and for this purpose there should be a drastic re-orientation of the entire planning process.

An employment oriented development planning would require fundamental changes in the Government strategy and behaviour of institutions and persons. Such changes, however, cannot be easily attained. This is a difficult and ambitious task. Fortunately some of the international agencies have also given considerable amount of attention to manpower and employment aspect of development. Their activities can provide useful guidelines for our future work. The efforts of the ILO led to the passage of the ILO Convention No. 122 on Employment Policy which in turn laid the basis for ILO's World Employment Programme (WEP) initiated in 1968. Under this programme, ambitious research efforts have been started to investigate the relationships between employment and other aspects of development such as population growth, technology, income distribution, education, urban development and trade. WEP has also organized Employment strategy missions in Colombia, Sri Lanka, Iran, Kenya and Philippines. The reports of these missions have brought out the inter-related nature of employment and development problems, and can provide useful guidelines for us. The present concern with employment problems is also reflected in the UN's International Development Strategy for the Second UN Development Decade and in the public statements of the World Bank President.

VI. PROBLEMS AND TASK IN RELATION TO THE FIFTH FIVE-YEAR PLAN (1975-80)

Realizing that our development planning of the past has not fulfilled/the expectations that were placed in it in terms of greater employment opportunities and better standards of living for the people, the present Government made long ago a significant announcement that the President has directed that "henceforth greater employment must be treated as a primary goal for economic development and that it should be essential criterion in assessing the viability of projects and programmes. The growth rate as such would no longer be the over-riding goal but would be the outcome of an employment oriented strategy."

Dawn, Karachi, 20 December 1972 : Announcement made by Federal Minister for Political Affairs. See mark on previous page.

The Constitution, which was passed by the National Assembly in April, 1973 embodies, among other things, Principles of Policy concerning social justice and promotion of social and economic well being of the people, which are closely related to employment promotion and manpower development. Article 37 directs that the State shall :

*** ******* ****** ***

(b) remove illiteracy and provide free and compulsory secondary education within minimum possible period ;

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(c) make technical and professional education generally available and higher education equally accessible to all on the basis of merit ;

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(f) enable the people of different areas, through education, training, agricultural and industrial development and other methods, to participate fully in all forms of national activities, including employment in the service of Pakistan ;

Article 38 directs that the State shall :

(a) secure the well being of the people, irrespective of sex, caste, creed or race by raising their standard of living . . ."

Our basic approach to manpower planning in relation to the future Plan should, therefore, be determined by the basic principles underlying the above directives. It means that we should give serious attention to our problems and systematically plan our action to achieve the objective as effectively as possible.

APPENDIX I

TECHNOLOGIES OFFERED IN POLYTECHNICS AND TECHNICAL INSTITUTES IN PAKISTAN

Auto & Diesel
Civil
Electrical
Mechanical
Machine-Shop
Tool Design & Tool-Making
Radio & Electronics
Textile Weaving
Power
Refrigeration & Air-conditioning
Horology
Drafting and Designing
Chemical
Foundary and Pattern-Making
Welding
Welding & Metallurgy
Wood-Working
Garment Making
Sheet Metal Forging
Television
Painting & Sculpture
Glass & Ceramics
Auto & Farm Machinery
Architectural

PROPOSED TO BE OFFERED

Telecommunication
Public Health
Marine Engineering
Dress Design and Dress-Making
Commercial
Product Design
Textile Design
Printing & Graphic Arts
Food Technology

LIST OF TRADE COURSES OFFERED IN PAKISTAN FOR TRAINING OF SKILLED WORKERS

(a) Currently being offered

1. Armature Winder
2. Auto & Diesel Mechanic
3. Auto Electrician
4. Auto Fitter
5. Bench Fitter
6. Black Smith
7. Boiler Operator
8. Building Artison
9. Cabinet Maker
10. Carpenter
11. Centre Lathe Turner
12. Diesel Mechanic
13. Draftsman (Civil)
14. Draftsman (Mechanical)
15. Electrician
16. Estimator
17. General Fitter
18. I. C. Engine Artificer
19. Machinist
20. Moulder
21. Painter & Decorator
22. Pattern Maker
23. Plumber
24. Radio Mechanic
25. Refrigeration & Air-conditioning Mechanic
26. Sheet Metal Worker
27. Surveyor
28. Welder
29. Wireman
30. Wood Machinist
31. Die Sinker
32. Book Binder
33. Jig & Tool Maker
34. Marine Engineer
35. Engraver
36. Mechanic Petrol Motor
37. Mill Wreght
38. Turner
39. Radio Operator
40. Liee Man

(b) New Courses proposed to be offered

1. Carpet Weaving
2. Dry Cleaning & Dyeing
3. Electroplating
4. Farm Machinery Mechanic
5. Fitting & Die-Making
6. Hair Dressing
7. Lequer Turner
8. Leather & Upholstry
9. Precision Instruments Mechanics
10. Printing & Composing
11. Tailoring & Dress-Making
12. Television Mechanic
13. Textile Spinning
14. Textile Weaving
15. Tracer
16. Tube Well Operator
17. Wireless Operator

THE IMPORTANCE OF VOCATIONAL GUIDANCE IN PROMOTING MANPOWER DEVELOPMENT AS IT RELATES TO TECHNICAL EDUCATION IN PAKISTAN

by

Mr. M. INAMUL HAQUE*

The modern technological development has made the life so fast that some times it is difficult to keep pace with it. This becomes all the more difficult in a developing country like Pakistan. It is imperative that the young generation of Pakistan must acquire knowledge and salable skills develop understanding and attitude to make them intelligent and productive participants in the progress of the country. In order to achieve these qualities the youngsters need guidance in supervised work-experience as well as in developing knowledge and skills for a particular occupation.

Vocational guidance assists the individual in his effort for choosing an occupation, preparing and making progress in it.

The experts however, feel that in addition to the vocational problems it is necessary to see that the person seeking vocational guidauce in reality needs counselling, or compared with other problems, his vocational problem is not very significent. As per example a worker already engaged in an industry develops a behavioural change in him, becomes arrogant, decreases his output and thus efficiency goes down. He finally quits the job, shows interest in jobs where he could spend more time in travelling. The real reason may be, that he wanted to travel to avoid staying at home with his family.

It is desirable that when a problem of vocational guidance is being solved, the counsellor should deal with the whole person encompassing with his hopes, prejudices and ambitions.

There are over fifty varieties of guidance — ethical, adult, moral, marital vocational, etc., it is practically impossible to cover all of them in such a limited time and space, therefore, I will confine the discussion to the vocational guidance as it relates to the field of technical education in Pakistan.

The process of helping people to solve their vocational problems is complicated because of the following :

(a) When an individual is assisted to choose an appropriate occupation the process cannot be completed quickly as it requires time. As a matter of fact lot of time is needed for an individual to initiate approach to the problem of his occupational choice achieve a position in some gainful occupation and adapt himself to the task required.

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(b) The complex personality of the individual is involved he may have many facets including his ability, interest and other personal characteristics, an individual often changes his ideas, develops a new attitude, and insight as he gains maturity and thus tends to become more and more complex, in his personality.

(c) It usually entails not only a vocational problem but also educational and personal problems as the individual who is interested to choose a career must consider the educational programme required for it, the financial resources of his family, the attitudes of his parents towards the particular occupation and the adjustment, called for the social relationship.

Job placement is the culmination of any vocational guidance programme. In the field of Technical Education in Pakistan although the Educational Institutions are well equipped to cater to technological requirements and its developments in the country, none of the Institutions has ever utilized guidance services to strengthen the liason and to keep abreast of the growing needs and requirement of the industry.

It is however, very heartening to note that since the take over of the Peoples Government under the dynamic leadership of a Popular Prime Minister, there is such a pace of development in all the spheres of life that it was hardly conceivable. In the frame work of our education policy 1972-1980 there is a massive, shift towards science and technology. The agro-technical education is being introduced in our schools and by 1980 it is expected that one third of the total enrolment in educational institutions will be in technical subjects. That is the enrolment in technical subjects will increase from 5% now to 33% in 1980. As such it is imperative that we must converge our attention to an effective vocational guidance programme so that the manpower thus developed may be put to the proper gears without loss of time and energy. It is, therefore, recommended that the Government should actively consider for an early establishment of guidance services department. A plan to this effect appears at Annex 'A' with a special attention to placement and follow-up services.

Although the placement and follow-up services are time consuming and a real test of patience for the organiser but rewarding and satisfying as one finds pleasure when he sees graduates of his Institutions placed in an industry and finds them working adequately to the satisfaction of the employers.

The placement services should have a controlling cell in the directorates of education of each province. The function of these cell should be to keep up to date record of the job opportunities and the trends in the industry in the province and bring up the curriculum of various technologies being taught in the institution with the day to day requirements of the industry and the changing needs of the area.

In colleges and polytechnics only the placement officers under the guidance of the head of the institution should deal with the requests of the employers for job filling so that it may be handled efficiently and effectively. This would enable the Institution to recommend the best qualified students. The higher the quality of the applicant the more likely the employer to continue asking the Institute to furnish them.

As far as the schools are concerned there should be an operative cell attached with District Education Officers having at least five counsellors in each cell to prepare teacher counsellors and arrange guidance programme in such a way that each school is visited twice a month with the introduction of agro-technical education in schools it will be necessary to provide the same facilities of guidance and job opportunities in the schools as has been suggested for colleges and polytechnics.

In view of the difficult financial resources in appointing a placement officer specifically for the jobs in every institution, the services of teachers who are sufficiently interested and capable to assume placement responsibilities may be utilised in addition to the teaching assignment which should be comparatively reduced to enable him to give his attention to his new responsibilities. He may not be as competent as desired but may have enough interest to improve himself after the job has been assigned to him. The teacher delegated the responsibility for the placement and follow-up services must have the following characteristics

(1) Organisational ability.

(2) A reputation for maintaining good relationship with others.

(3) Some training in guidance.

(4) Ability to depict the real but good picture of the institution.

(5) Reasonably good acquitance with the industry and needs of the area.

(6) Ability to maintain up-to-date cumulative record of the students and job requirements.

(7) Ability to employ techniques used in conducting the follow-up programmes.

The education department of each province as well as the central Ministry of Education should provide, adequate budget to finance guidance programme, appropriate technical assistance and development of methods and materials suitable for use on provincial and national basis.

The authorities should make arrangements for the provincial and national co-ordination of policy and action in the field of vocational guidance, more particularly towards maintaining effective services to young persons, facilitating for confidential data concerning industry, trades and occupation employment and training opportunities. There should be close co-ordination with the employment exchanges of the country to have an effective guidance programme. If possible the co-operation of representatives of employers and workers may also be sought.

For any successful guidance programme, an effective research programme is necessary. To promote research and new experiments in methods of vocational guidance special measures should be taken on a co-ordinated basis. In addition to the experience of the counsellor of the guidance programme the research may include examination of questions like methods of interviewing the analysis of requirement of the different occupation, the provision of industrial and occupational information aptitude and other psychological test, etc. To initiate guidance services the placement officer should emphasize the importance of detailed study of the individual's personality taking the following questions into consideration :

(i) Has he any defect of health or physique that may be of occupational importance ?

(ii) How is his appearance, his bearings and his speech ?

(iii) What type of education has he had ?

(iv) What occupational training and experience has he had already, how well has he done there?

(v) How much general intelligence can he display?

(vi) Has he any mechanical aptitude and manual dexterity?

(vii) To what extent are his intellectual, practical, active, social and artistic interests ?

(viii) How acceptable does he make himself to other people?

(ix) Does he influence others?

(x) Is he steady and dependable?

(xi) Is he self-reliant?

(xii) What are his domestic circumstances?

(xiii) What do the other members of his family do for a living?

(xiv) Are there any special openings available for him?

Following questions may help the placement officer in the analysis of an occupation.

(1) What is the nature of the work?

(2) What are the activities, duties and responsibilities of those engaged in it?

(3) What special mental abilities are required?

(4) What are the minimum educational qualifications and experience required?

(5) (a) What are the conditions of work?
(b) What are the regular hours of work?
(c) Is there much overtime?
(d) Are there any particularly busy seasons?
(e) Are there physical hazards or mental strains?
(f) In what form is the compensation, peace rate, hourly wage, salary or commission.

(6) (a) What is the average income and what is the income range in the occupation?
(b) What is the starting wage or salary?
(c) How much job security does the occupation offer?
(d) Is there a pension or retirement plan, etc., etc.

To establish co-operative relationship with prospective employers the placement officer should visit and talk to them. By knowing employers personally, he is likely to develop co-operative working relationship. After obtaining job vacancies from the employers the placement officer should carefully consult the cumulative record a sample of which can be seen at Annex 'B' check up the accuracy of the information given by each registrant and select the candidate suited for the opportunity.

If however, placement officer recommends an unqualified person, this may bring disappointment to the candidate and may litenate the employer. It is better if the bio-data of the candidate may also be sent with the introductory letter high lighting the qualifications of a candidate where necessary. Later it should be found out from the prospective employer whether he offered the job to the recommended candidate and if he did so whether the candidate accepted that job.

Consequently the vocational guidance services department of each institution should make every practical effort to follow-up its graduates by preparing a questionnaire, a sample can be seen at Annex 'C' and should try to collect almost all information sought if possible. This is obviously difficult to obtain but it can yield much valuable information to plan future curricula and guidance programme.

If guidance services are to be improved the research section must conduct many more and much better studies of follow-up techniques.

At the end of each academic year the placement officer should prepare a summary report including the number of registrant place according to types of positions, the number of job vacancies received, etc. This report should immediately be submitted to the Directorates of Education of the province where reports received from all the institutions attached be compiled and the information thus collected be supplied to the central Ministry of Education in the month of December each year where cumulative record be prepared and nation wide decisions be taken every year to strengthen the vocational guidance services so that cohesion among institution and the industry may be achieved.

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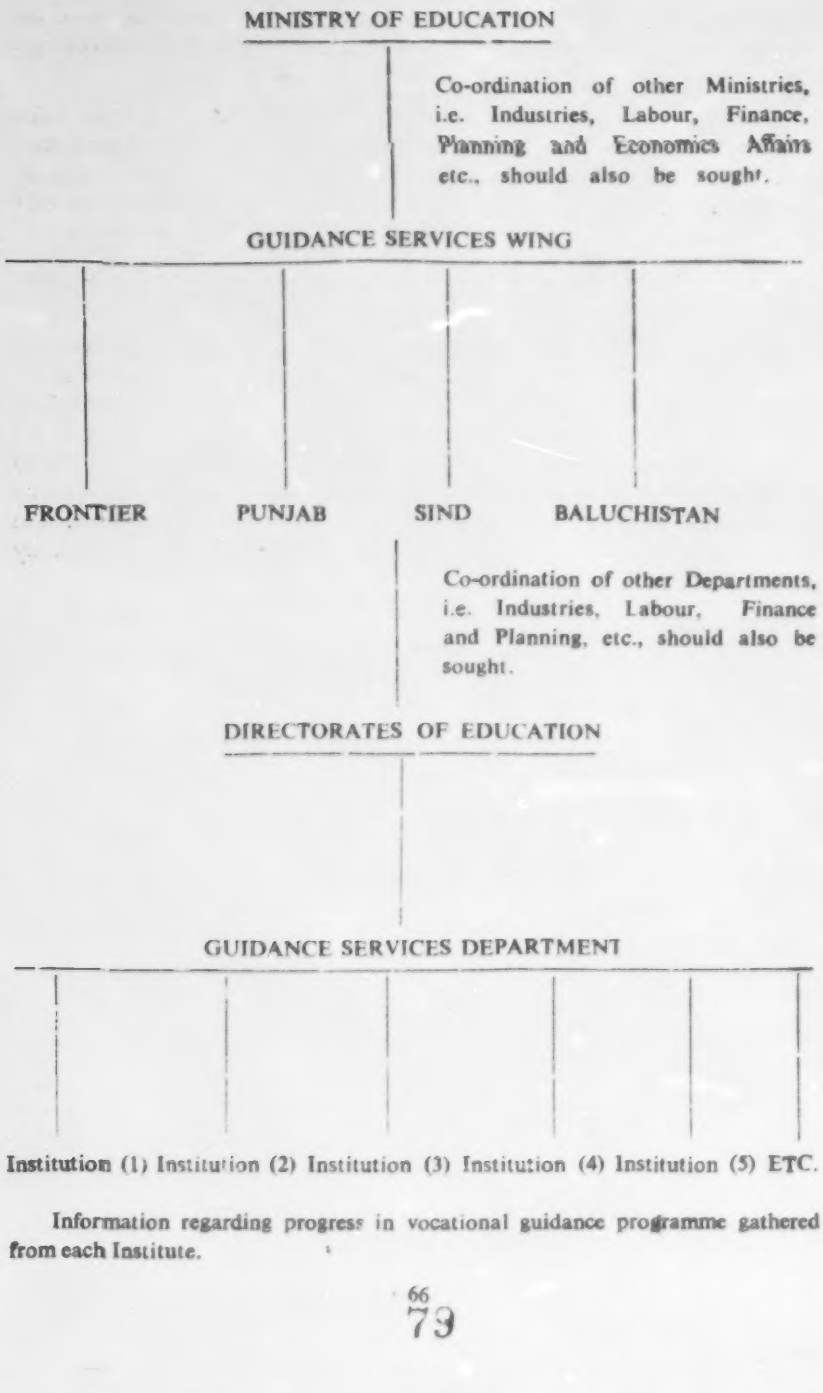
ANNEX 'A'


MINISTRY OF EDUCATION
Co-ordination of other Ministries, i.e. Industries, Labour, Finance, Planning and Economics Affairs etc., should also be sought.
GUIDANCE SERVICES WING
FRONTIER
PUNJAB
SIND
BALUCHISTAN
Co-ordination of other Departments, i.e. Industries, Labour, Finance and Planning, etc., should also be sought.
DIRECTORATES OF EDUCATION
GUIDANCE SERVICES DEPARTMENT
Institution (1) Institution (2) Institution (3) Institution (4) Institution (5) ETC.

Information regarding progress in vocational guidance programme gathered from each Institute.

ANNEX 'B'

CUMULATIVE RECORD

1. Name .....
2. Home Address.....
3. Date of birth..... .....Age.....
4. Place of birth.....
5. Name of primary school and.....
   year of passing with division..... .....
   or
   Name of secondary school and.....
   Year of passing with division.....
   or
   Name of institution and.....
   Year of passing with division.....
6. Father's Name.....
7. Occupation of Father.....
8. Name of Guardian..... .....
9. Occupation of guardian.....
10. Both parents living.....
11. Number of brothers and sisters. His position.
12. Physical impairment, if any.
13. Special aptitudes.
14. Extra curricular activites, significant hobbies and interests
15. Travel experience, if any.
16. Industrial experience if any.
17. Employment record:
    (a) Name and address of employer.....
    .....
    (b) Type of work.....
    (c) Wages or salary.....
    (d) Length of job/period and year.....
18. Remarks

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ANNEX 'C'

FOLLOW-UP INFORMATION

1. Employment .....Full-time..... .. Part-time.. .. ..

2. Nature of work.....

.....

3. Length of service.....year..... month.. ....

4. Name of Organization..... ....

5. Name of employer.....

Address .....

.....

6. Details of part-time/full-time jobs after graduation.

I. (a) Nature of work.

(b) Length of service.

(c) Name of employer.

II. (a) Nature of work.

(b) Length of service.

(c) Name of employer.

(Please attach loose sheet if more space is required)

Signature .....

Full name .....

Address .....

.....

.....

Date..... Telephone No.....

ANNEXURE 5

VOCATIONAL GUIDANCE FOR MANPOWER DEVELOPMENT IN PAKISTAN

by

MR. MUNAWAR DEAN*

Changes in the way we live and how we make our living, caused vocational education to become central to total process of public education. The purposes of vocational education have become so enmeshed with the purposes of education in general that we are not justified in thinking of vocational education as a separate and distinct entity set aside from education. The total educational process is inexorably tied to the work required by the society. Both the nature of society and the characteristics of work have changed. In recent years these changes have been rapid and have magnified the interdependency of work and education.

The centrality of work in the day to day lives of people and the ways in which work influences the social, civic, cultural and personal relationships of the individuals must take a new meaning and a new emphasis in the total educational process. An occupation is the most occupying of all human activities. It sets the standard of living, it influences family relationships and it controls the quality and quantity of civic participation and responsibility.

If vocation is defined as what a person does to earn a living, it follows that vocational education consists of the educational content and process through which one learns to become a competent worker. This point of view suggests that vocational education is a part of the total education process but further limitations must be placed in order to focus specifically upon the areas directly associated with occupational competency. The skills and knowledges required of a person to perform the tasks of an occupation are of primary concern in vocational education.

It has been the practice in vocational guidance/education to bring people having common vocational goals together in one group for instructional purposes. It is not the name of the subject that matters it is the intent of the student and the arrangement of the instructional content. We may say that there is nothing inherent in the name of the subject that makes it vocational. Vocational education, although focussed upon the occupational task of the world of work cannot be easily separated from the total educational process.

Pakistan is a developing country. Day by day the society is becoming more complex and complicated. The consumers have increased considerably but the production is very low. This has caused hardship to wage earners. The wages have undoubtedly gone high but there is no stability in the market. The purchasing

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power of the money has decreased. Many types of new goods and services have appeared in the cities of Pakistan during the past twentyeight years, e.g. television, colour photography, electrical appliances, refrigerators, etc. This has changed the economic structure. The increased use of automobiles has improved and increased the country's highways. Labour force in the country has multiplied, but it may not be uniform in all class of workers. But the question is how many people realise with conviction that such and such job is meant for them. Where future career cannot be selected or determined by a prospective candidate vocational education is a must. In Pakistan, a large majority of people enter professions for which they had no aptitude. Consequently, they prove utter failure on the job. A majority of students go to schools or colleges because their parents wanted them to study or perhaps they did not have anything else to perform at home. A pilot who has gone in the Air Force unwillingly and under pressures might soon commit suicide in a crash. A misfit doctor may play havoc with the lives of patients.

Another reason for vocational education in Pakistan is because the needs of youths and adults are increasing. The success of the nation's economy depends in no small part on the proficiency of the nation's workers. The youths and adults who enter a profession through recommendations, bribery or by 'pick up' method prove costly and inadequate. Such people lack workmanship and proper temperament for work. We believe that basic individual differences exist and this is true of the competencies in the individuals also. Even we would not rule out vocational guidance for those who have been employed for a number of years and who need training due to technological changes in industry or to new discoveries and inventions in agriculture.

Vocational Guidance is the need of our society because society recognises that every individual member should gainfully be employed. In Pakistan, there is a need to equip each person for some occupation. It is therefore suggested that we should equip young people to enter an occupation suited to his abilities so that he can assume full responsibility in the society. It is desirable that each young person should be given a fair chance to exercise his right to make his life happy. Each young man should be given a chance to stimulate his curiosity, to cultivate his ability and to think rationally.

Today's Pakistan is faced with many problems like over population unemployment, brain drain, social disorder due to alien values, crimes, etc. Vocational Guidance can save many young people from frustrations and social ills.

The importance of Vocational Guidance in Pakistan is paramount because it is related with the economic development of the country. The progress of education and skill training has been slow in the past 28 years. The country has failed to catch up industrially with the other developing countries. It is only in the recent past that the Government embarked upon an active programme to provide scientific methods to improve various sectors of life. This is an acknowledged fact that education is an economic investment of the society. An increase of labour productivity is the only means to erase poverty in Pakistan and the best policy to achieve it is through the spread of knowledge and guidance. In Russia, a study was carried out on the "Impact of General Education of Workers Upon the Productivity of

their Labour" by Gavrishehev. He claimed that industrialists prefer expensive (educated) workers over cheap (illiterate) ones because the increment in labour productivity exceeds the increment in wages. There is a correlation between economy, manpower and education. In Pakistan, the number of new job opportunities being created are far short of the number of new entrants on the employment market. These factors coupled with a sharp population growth at a time when country's food resources have considerably fallen — afflict the task of economic development. The process of economic growth is very complex. How is it possible to make better use of the enormous human potential of Pakistan? Is it possible to boost up industry or agriculture. Will it suffice if the labour is organised? Should we take G.N.P. as the principle index of planning model and as a yardstick to measure national advancement? We believe that all this planning will only be effective and consistent if proper guidance is given to those who join different occupations. This will increase efficiency and build country's economy.

In the post-independence era, education was given prominance throughout the developing world both as a basic human right and as one of the main prerequisites of economic progress. Owing to the efforts of the Unesco and through its initiatives, the International Conferences in Karachi, Addis Ababa and Santiago held in the early sixties set very ambitious educational targets for whole continents. The conferences pointed out that educational planning must include General Technical and Vocational bias.

With the foregoing description of the need for Vocational Guidance/Education in Pakistan we may say that education and employment are inter-related but proper guidance breaks manpower bottlenecks in strategic fields. By supplying skills which activate physical, capital and natural resources, vocational guidance exerts a multiplier effect or employment and development. If our country's educational system turns out people who cannot find a useful outlet for their activities the resources expended in the effort from the economic point of view go unproductive.

The Need for Educational Planning

What educational planners can do to enhance the positive effect of educational development on employment? We may stress the need for the fullest possible integration of educational planning into overall economic planning. Since Pakistan is not rich in its resources, non-utilization of education and training received would tantamount to a waste of resources. Preference should be given to those types of education which are of crucial importance for development.

The Choice of Career

The most difficult job for a student is the choice of a career. Students must know how to make a realistic appraisal of themselves and of possible career choices. In order to do so they should make a realistic appraisal of their physical, mental and social aptitudes and abilities ; relate the factors in appraising a career for themselves and themselves for a career and relate the results of their self-appraisal to the choice of an appropriate career.

We may administer a questionnaire consisting of the following significant aspects :

A. **Importance of choosing a Career**

(i) How to spend time.

(ii) Choice of a career.

(iii) Place of a job.

(iv) Type of people.

(v) Future prospects.

(vi) Income and standard of living.

B. **Time for selecting a Career**

(i) Training required.

(ii) After high school graduation or later.

(iii) Delayed selection.

In this section, the questions should be suggestive by which students may be motivated to make their choice of the future career. A suggestion may be given that "If you do not plan your career you may spend your entire adult life in an unsatisfactory job situation. Another suggestion may be, not having a job, delay in finding the right job and an unsatisfactory job situation are three consequences of not planning for your career.

This self-appraisal should also indicate that the purpose of this programme is to suggest an appropriate time to start choosing. **If you have not already started the time is now.** Almost all careers require time for preparation and many require a long time. The student should start thinking about it now. The time is needed in the choice of a suitable career because a student may change his mind more than once. Starting to choose a career will give time to a young student to investigate more than one career.

C. **Career according to aptitude and abilities**

(i) Mental aptitude for a career.

(ii) Ability for a career.

(iii) Social aptitudes.

(iv) Physical fitness.

While choosing a career, the world of work must be kept in mind. The full information may be given to students about different careers. The student should choose a career for which he has the mental aptitude and abilities. Aptitudes and abilities represent capacities. Aptitude is the capacity to learn and ability is capacity to achieve.

D. **Career according to interests and goals**

(i) Intellectual.

(ii) Mechanical.

(iii) Social.

(iv) Domestic.

(v) Artistic.

Career is planned according to interests. Interests represent the things that one likes, enjoys and wants to do. These are important for the simple reason that one performs better if one likes and enjoys.

Kuder Preference Record is an interest inventory. It may be translated or on its pattern an interest inventory may be developed for our high schools.

A self-appraisal sheet may be maintained in the school for each individual student.

Vocational information becomes more effective if it becomes an integral part of the career planning and development process. In the vocational guidance, the emphasis should shift from a life long choice to a life long process of planning.

Vocational Guidance at Different Levels

In order to equip young students to enter occupations suited to their abilities vocational guidance should be imparted at each level of education, i.e.

(a) Classes I - V Primary.

(b) Classes VI - X Middle and Secondary.

(c) College level.

(d) University level.

This longitudinal guidance will afford a fair chance to students to exercise their right in the pursuit of happiness. Moreover through different levels ability to think rationally must be cultivated in students. While we are planning vocational guidance at different levels, it should be borne in mind that plans or the programme should not be unrealistic and therefore not feasible. Behind the unrealistic programmes, usually there is absolutely no will to implement them. The planning should be done within a given set of environment. For any programme to work much will depend on economic, political, social and administrative set up. No planner can change those situations. A good planning of the Vocational Guidance at different levels can be said to achieve its true goal only when trained persons actually fill the positions for which they have been trained.

A. **Vocational Guidance from I - V Classes :** The cardinal aim of primary education is not to prepare the child for immediate employment but to give him a good start in life. However, primary education may help significantly to increase productivity of labour. Primary education in Pakistan is more widely spread than any other and mostly in the villages. Primary school students in rural areas must give a maximum of practical agricultural knowledge which is indispensable for any educated person whatever career he might embark upon. Guidance at this stage should cultivate in pupils a new outlook on agriculture as an occupation, to rehabilitate the work on the land and to heighten the prestige of the modern cultivator.

Many of the schoolleavers especially those after five years of study are too young to join any occupation. It may take a few years before actually they start working if they are lucky to find any employment. Young children should be given training in farming, youth service, national service and community development. Such a training should again depend on local conditions and national priorities. It is also suggested that more wide spread simple craft and commercial training at this stage is meaningless.

B. Vocational Guidance at Classes VI - X : There is a need in bringing the secondary school education into closer harmony with manpower needs. It is a wrong notion in our people that employment chances for high school graduates with science and mathematics are limitless. Without the vocational guidance students will not be able to find suitable jobs. The education at this level should be with a vocational bias. In cities and towns the work in the schools should include instruction and practice in the elements of productive industry including agriculture and the mechanic and domestic arts and that the instruction in mathematics, the science and drawing should show the application of these subjects in industrial life. Secondary education must be goal directed and vocation oriented.

The programme should include :

(a) A complete detail of the vocations and occupations available in the community.

(b) Period of training.

(c) Type of subjects that will help as a background to enter certain vocation.

(d) Facilities during training.

(e) Job opportunities.

(f) Salary increments and pension benefits.

(g) Any other fringe benefits.

(h) Terms and conditions of service.

(i) Chances of professional growth.

The counsellor will collect information about jobs from various sources, e.g. Industry and Employment Exchange. This information should be displayed on the Board. During the year a few experts or resource persons should be invited to address the students. Another important aspect is taking students on field trips in institutions and factories. The factories should be selected by students according to their aptitude and interest. In a Secondary School Guidance programme should include "Placement Service".

C. Vocational Guidance at College Level : When students enter college they are sensible and mature enough to select for themselves areas of interest. In our country as majority of students come from a rural background, they find it difficult to plan their career. Students generally take soft subjects which lead them no where. Guidance therefore is most needed in our colleges. The Vocational Guidance programme would involve career planning by giving full information about various vocations. Placement Service is also very important in colleges. If

it is economically feasible then, "Follow-up Study of College Graduates" is very much desirable.

D. **Vocational Guidance at the University Level :** In the Universities students come for specialisation. The areas they join for masters degrees are those in which they have a good background. In a University Guidance Centres should be opened with the intent of doing research on changing trends in Industry and other vocations. Research should be conducted on job preferences of various types of graduates. A full research cell should be attached with the University to study the manpower needs. The University Research Cell should advise the Planning Commission of Pakistan in policy-making. If possible the findings of the researches must be co-ordinated at the Federal Government Level for creating job opportunities for graduates.

The Research Centre should have a placement service and follow-up facilities. The students of the University should remain in touch with the Employment Market. A complete detail of various jobs should be available for students.

Career Guidelines

Career Guide-books should be published for the guidance of students at all levels. This will help them in future planning. These books must contain information about vocations and occupations.

The occupational information needed for career planning may be classified as quantitative and qualitative. Quantitative information concerns occupational distribution trends and employment opportunities. Qualitative information concerns the nature of work, the qualifications required, the conditions of work and the returns to the worker. In addition to this a Dictionary of Occupational Titles should be compiled. Broadly speaking a detailed information about the following vocations should be supplied in a career-book :

Agriculture
Teacher Education
Vocational Industrial Education
Vocational Technical Education
Business
Nursing
Medicine ; and
Stenography

In the end I must add that an effective Vocational Guidance Director Counsellor is needed who would develop a well-coordinated programme for passing along vocational information to students. This programme utilizes teachers, vocational instructors, librarians, counsellors and community agencies. At all levels the Director Counsellor would provide teachers with information, source materials and techniques. He would assist the teachers to develop special files of materials

on vocations and on other requirements. Above all the counsellors should create such a self-realisation in a student that he asks from himself :

What should I prepare for?

What subjects should I select?

What are future opportunities?

What aptitudes, abilities are required?

Do I possess those abilities?

Will the reward for such a work satisfy me?

How can I make a wise choice?

The counsellor's task is to help each student obtain needed information, evaluate it and make decisions.

ANNEXURE 6

SOME PROBLEMS OF PSYCHOLOGICAL ASSESSMENT FOR VOCATIONAL GUIDANCE IN PAKISTAN

by

Lt.-Col. M. Zakaria*

Allama Iqbal choose to introduce his concept of self-realization (Khudi) expanded in his Masnavi Asrar-i-Khudi which runs as follows :

It may appear too odd to degrade a spiritual concept to the level of a mundane application yet, I believe, the complete best epitomizes the philosophy that lies behind of concept of guidance as I understand it. If the pulpit does not serve a reason to fulfil his destiny of life let him have a recourse to the cross to carry out the mission of his life. The problem then enters into the domain of guidance. For self-fulfilment and self-actualization, whether to choose the pulpit or the Cross that is the question. Every person has a best self and he is destined to attain, only if he can make a right choice of his mission.

Guidance in some crude form or perfunctory fashion might have existed in our schools and colleges for sometime in the past, but as far as I am aware structured and test centred guidance for educational placement or allocation in an organized manner has not been practised in our country. However, we have had experience on a limited scale, in the use and application of psychological methods for personnel selection in some of our educational institutions and government departments and private industrial organizations. The psychological methods in most cases have remained confined to the employment of intelligence tests alone. The use of personality tests has been made in the Armed Forces and for personnel selection by the Federal Public Service Commission for central superior services. Aptitude tests have been employed for classification of Other Ranks of the Pakistan Armed Forces since 1957. This shows that our experience in the practical field of vocational guidance is highly limited.

As to the availability of instruments for psychological assessment, we find ourselves ill-equipped absolutely and cannot lay claim to any indigenous production Moreover, there are shortages of qualified manpower for our academic institutions but in the applied field the situation is still worse. For running vocational guidance services in an effective manner, we will have to equip ourselves with psychological instruments of indigenous origin. To man the guidance services, well-qualified and properly selected personnel will be required to undergo orientation courses abroad in their field of speciality for about three months.

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Guidance services are built on decision predictive strategies that involve clinical and judgemental data of personality aptitudes, interests, achievements and intelligence assessments and occupational information evaluations. I shall review briefly the present status of these fields of assessment in Pakistan.

Aptitude Tests : Aptitude tests constructed and standardized from indigenous resources are being employed for trade allocation of Other Ranks of the Pak Army and the Pak Navy under an aptitude testing scheme introduced in 1957. The aim was to reduce wastages of technical training on the one hand and to optimize work efficiency and job satisfaction on the other. The scheme was especially geared to the needs of technical services such as Engineers, Signals, Artillery, Ordinance Supply and Clerical corps. The noteworthy among the batteries produce were the ones for less the assessment of mechanical aptitude, clinical aptitude, and driving aptitude. Purely statistical prediction model, in terms of minimum psychographical grades, suiting a single-stage classification, was used for final allocations. The trades numbered about 350 and it was an easy task to derive full benefit out of the differential aptitude test results without volating the demands of the target models. Difficulties were confronted in meeting demands of minimum standards for competing trades of equal importance but the greatest hurdle in actual implementation of the aptitude — based recommendations was offered by the pay-structure that did not go in harmony with the role requirements. Instances of low pay with high aptitude grades and high pay with low aptitude grades were potent enough to detract from the effectiveness of the otherwise theoretically sound scheme. Pay-structure, however, was not the only interfering factor. Priorities of educational requirements and trade quotas were other factors which tended to cancel the contribution of differential aptitude test results in a multiple stage classification strategy. In many cases the trade minima had to be disregarded in favour of educational qualifications for filling in a specified number of vacancies.

The scheme continues to function todate. We are not aware whether any follow-up studies have been conducted to determine the pay offs of the scheme in terms of increase in efficiency, morale and job satisfaction, or in terms of reduction of training wastages and driving accidents, etc.

Much can be learnt from the experience of the Armed Forces in the field of aptitude testing for job placement. Our immediate need is to make a thorough survey of the existing theories of aptitudes and further to critically examine the available strategies for aptitude assessment. In the basic research we may seek guidance from the findings of studies of analysis of human abilities by Thirtstone Primary Mental Abilities and Guilford three dimensional model of human intellect : processes, products and contents. Once the field has been charted the construction of specific tests can be started in line with a formulated scheme to produce a set of about a dozen basic aptitude tests which can be combined in several batteries in an analytic fashion in accordance with target and criteria models conforming to the requirements of teaching, law, engineering, medicine, accounts, administration and military professions, etc. etc.

Occupational Information : Occupational information is an important aspect of vocational guidance services. "Free choice of vocation is mockery when we neither know what we may choose nor what we choose when we may." Creditable work has been done by the manpower planners of the Labour and Welfare Departments and the Planning Division of the Federal Government for the collection and dissemination of occupational information. The work in this field has, however, been confined to cataloguing of job titles under professional or occupational categories. Obviously from the guidance point of view the serviceability of this information is highly limited. The information has to be further processed to make it usable for guidance services programmes, which are pivoted upon matching job requirements with human attributes. What I mean is that we have not passed beyond the stage of job analysis to the stage of job specification in terms of psychological role requirements. Psychologists' role assumes importance in the process of job specification, but it regretfully pointed out that this aspect has suffered neglect at the hands of psychologists in the past. Psychologists have concentrated more on the development of instruments and techniques for the measurement of individual differences than on the evolution of method of measuring and evaluating occupational information. In our country even the available methods have not been applied to the processing of occupational information suiting counsellors' needs. Research projects to study problems relating to job classification, job titles and job specification, occupational families and occupational trends can be initiated by the psychologists. Guidance in this field can be sought from the literature and research findings published by American Organizations like, Science Research Association, United States Employment Service ; United States Office of Education, Occupational Research Division of the National Vocational Guidance Association, Personal services, Incorporated and Commonwealth Book Copy of Chicago, etc. With some adaptations, American studies can serve as models conducting our own research projects in the field of occupational information.

Personality Assessment : We enter troubled waters when we come to the problem of personality assessment for vocational guidance. For one thing personality assessment has entered the field of guidance very recently. Whereas general concepts of assessment (as a scientific procedure used for prediction) is only about thirty years old. However, during this short period, personality assessment has progressed rapidly towards a well-established professional discipline in the broader field of guidance psychology. The first systematic application of the principles of personality assessment was made by the psychologists appointed by the United States Government for selection of personnel to carry out duties entrusted to the Office of Strategic Services. Personality assessment has since expanded to larger horizons in all directions,—in the development of principle, in the evolution of techniques of data collection, data combination, specification of target mode criteria analysis and prediction strategies, etc. In prediction theory for examples concepts like moderator and suppressor variables and higher-order functions have been introduced to improve the predictive and discriminative efficiency of prediction strategies. Methods of prediction have been properly formulated and their relation merits

carefully appraised. We have seen the claims of statistical and actuarial prediction being weighed against the merits of clinical and clinicians' automated predictions and even predictions generated by a computer programme. At a theoretical level, concepts of different origin and connotations have been integrated into now generalized concepts. For example the traditional concepts of reliability and validity have been unified into a single concept by a generalizability theory. New techniques of evaluating various personnel decision strategies have been evolved, which take into account the costs of guidance/classification services along with utility outcomes from traditional counting of errors of omission and errors of commissions of the decision strategies.

In the practical field of personality assessment, we have not advanced less it very far and the lesson that we learn from the personality assessment programmes is that it would be premature to introduce personality appraisals by means of tests in our classification of guidance strategies at the present moment : Wiggins in his critical appraisal of the five milestone studies of personality assessment conducted in America during the last thirty years has presented a bleak picture of the incremental validities of the costly personality assessment procedures.

The five milestone studies are :

(a) Office of Strategic Services : Assessment of Men ;

(b) Prediction of effectiveness among Air Force Officers by Institute of Personality Assessment and Research ;

(c) Selection of clinical psycholgists by Veteran Administration ;

(d) Selection of psychiatrist residents by Menninges School of Psychiatry ;

(e) Selection of Volunteers by U.S. Peace Corps.

Each of the above American milestone studies were critically evaluated by Wiggins in respect of the (a) nature of prediction problem, (b) the methods of criterian analysis employed, (c) the assessment models and strategies utilized, (d) the manner in which data were collected, (e) the manner in which data were combined, and (f) the outcomes of prediction. It would be interesting to quote Wiggins remarks on the outcome of the study conducted by the Institute of Personality Assessment and Research :

> "From the convenient hindsight of almost 20 years, it is easy — and grossly unfair — to make pronouncements on what might have been done with the IPAR data in light of subsequent development in the field of personality assessment. Nonetheless, in evaluating the net contribution to knowledge of the thousands of zero-order correlations computed, one finds considerable truth in Clark's (1960) view that the laboring mountain scarce brought forth a mouse'

For his views on the Veteran Administration Selection Research Project, Wiggin quoted McNemar's final verdict as follows :

> "In summary, the major prediction project of our time fell far short of expectations. Its fall involved tripping over the criterion problem despite the recent experiences of wartime psychologists with this old stumbling block. With

its feet enmeshed in a web of uncritically selected tests and its head overburdened with clinical institutions, it never attained equilibrium, both landed prostrate in a field already strewn with efforts, noble and otherwise. Its collapse might have been forestalled by the injection of fruitful new ideas, but such ideas are indeed hard to come by."

The theory and practice of vocational guidance has become increasingly sophisticated during the last three decades. Guidance services that can attract the attention of the public and the Government Agencies, must establish their worth and utility in terms of increased human happiness and job satisfaction combined with enhanced economic productivity. These aims can be achieved only through dispensation of guidance services that the highly structured, test-centred and scientifically oriented and are manned by trained, well qualified, experienced and mature personnel. I have drawn attention to some of the problems that must be tackled before a programme of guidance services can be launched in the country. The first phase of the programme that I have adumbrated pertains to stimulating and creating the need for guidance services and more particularly to the building of an infrastructure for long-range undertakings. In the second and the third phases organizations may be set up to offer proper guidance services with multiple stage strategies based not only assessments of intelligence and aptitudes but also appraisals of such elusive factors as personality, interests, values and attitudes. With accumulating experience, guidance services can be expanded in scope, in the use of modern computerizable techniques for data processing and counselling and in range to cover longer spans of human life and wider spheres of application. Planning for the second and the third phases should follow the successful completion of the first phase.

First Phase (3 Years) : Our view in that as a first step towards the realization of our objectives, in the first instance a National Bureau of educational and Vocational guidance be set up. This Bureau be entrusted with the following functions and assignments to be completed within the first three years of its existence :

(a) To take proper measures to stimulate the need for introduction of psychological assessment — based programmes for selective admissions in professional and educational institutions and for recruitment by personnel management cells of industrial organizations.

(b) To aid the educational institutions and industrial organizations in setting up assessment procedures and evolving strategies based on the use of intelligence and aptitude tests, for purposes of personnel selection and pupil selection.

(c) To produce or to procure from appropriate sources, intelligence and differential aptitude tests to be employed in the selection procedures for admissions to medical colleges, law colleges, engineering colleges, teachers training colleges and polytechnics.

(d) To prepare and to evaluate occupational information and relate it to the psychological role requirements. The undertaking will be psychologically oriented drawing upon and deriving benefits from the application of the

principles of classification of human abilities, aptitudes and interests, etc. This assessment should include the dissemination of occupational information as well.

(e) To evolve and apply a strategy, in a restricted form, utilizing intelligence test results and cumulative record data only, for classification of secondary school pupils to channel them into newly introduced diversified educational courses. This project may be limited to about five rural schools in each province.

Guidance services may be introduced in well-planned tiered stages. The first tier of three years duration as outlined here should be mainly concerned with the building of infra-structure and later the programme should take at least six years to come into full operation with a nation-wide coverage.

The problem of developing countries is not the dearth of human talent, nature's bounties are normally distributed among the nations of the world. The problem that challenges the ingenuity of the planners of the developing nation, is to discover and to devise ways and means for the full exploitation of the human potential. As I see it as a psychologist, the primary aim of vocational guidance should be delineate the potential self of a person and then to show him the path most suited for the highest actualization of his inherent worth.

ANNEXURE 7

TECHNIQUES FOR CONDUCTING SURVEYS FOR AN EFFECTIVE VOCATIONAL GUIDANCE PROGRAMME

by

Mr. ERIC LORD*

Introduction

I am prompted to begin my paper for this workshop with an anecdote about a revered philosopher from one of our older British Universities who was asked how long, in time, his address would be if he were invited to speak at a forthcoming important conference of vice-chancellors. His reply was that he might speak for about three hours if he were only given a few days' notice ; for about one hour if the notice were extended to a few weeks and for about twenty minutes if he were to be allowed the luxury of two to three months' preparation. Unlike this worthy sage I have found that the pressure of time and the challenge of a crisis situation have compelled me to choose my material with excessive care and to limit the boundaries of my field of discussion so that unavoidable haste might not produce superficiality ; hence a shorter and, I hope, a more precise paper than would have been the case had I known I was to have the great privilege of joining you two or three months ago.

If my restraints do prove to have been too severe I hope that discussion in the group sessions will widen and deepen my salient pointers to an extent which would bring them close to satisfying most of the stated objectives of this Workshop.

I regret that circumstances have prevented me from familiarising myself adequately with the details of the Pakistani context in relation to education and employment in general and to vocational guidance in particular. I am, therefore, obliged to offer you my thoughts against the background of the situation as I know it in Britain. I hope you can, with me, accept the basic philosophy of education and guidance and the basic needs of young people the world over as sufficiently timeless and stateless as to make my contribution relevant in spite of peripheral national dissimilarities. Again, I would hope that our discussions in group session could effect any necessary interpretations.

At this point may I remind you of the duality of our system of careers education and vocational guidance in Britain. This duality we feel gives our system a strength that would be sorely missed if it were not there. At the school and college level we have two professional members of a local authority's staff, the careers teacher and the careers officer, working together within a complementary service to young people offering them guidance and placement in a programme designed to cover their transition from school or college to work or further education. The careers teacher will be a normal member of the school or college teaching staff chosen either by caprice or design, whilst the careers officer will be a full-time professional working

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from outside the school and responsible for contact with some 400-500 pupils and an, as yet, unspecified number of college students from several schools and colleges in an area, together with the responsibility for establishing and maintaining a meaningful bridge between education and industry. At the placement level the careers officer continues his involvement in a role which overlaps with officers of the Employment Service Agency who have a responsibility for employment matters for all those, of whatever age, who do not require in-depth guidance but have need of a job change. The Employment Service Agency is a national body being one of the two executive arms of the Manpower Service Commission. The other executive arm of this Commission is the Training Service Agency.

To revert to my undertaking to delimit my brief in the interests of greater profundity, I would like to restrict my paper to the consideration of three issues raised by three components of the title assigned to this session—namely, techniques, surveys and vocational guidance programmes. I propose to deal with these components in reverse order commencing with vocational guidance programmes.

Vocational Guidance Programmes

The rationale for vocational guidance in Britain at this point of time is to help and encourage pupils and students to move towards a state of vocational maturity in which they will be able to say, 'I think I know who I am'; 'I think I know what I do not want to do,' and 'I think I have the confidence to decide what I do want to do from the several alternatives open to me.' This vocational maturation is the final stage of a continuous developmental programme of guidance in the broadest sense which could be equated with education also in its broadest sense. Education, as so defined, may be likened to a journey which each individual is bound to make from the dependent stages of infancy and childhood to the independent stages of manhood and maturity. Not all individuals make this journey in full but all benefit from guidance along the way and particularly at those critical stages, both predictable and unpredictable, when new problems have to be faced, new situations met, new skills performed, new knowledge used and new decisions made. The agencies of guidance, or education, traditionally recognised as having a significant role to play during the course of this 'journey' are the home, the school, the community, the peer-group, the youth service, the religious frame of reference, the workplace, the instruments of guidance referred to as the mass-media and popular entertainment and last, but not least, the cultural heritage each individual is heir to. Ideally, all these several agencies should be contributing in a positive way, but alas, this is not so, at least, as far as Britain is concerned. The official agencies of formal education as represented by the school or college, the careers service and the youth service may be all that is left to help some young people forward. Undoubtedly one of the critical stages mentioned above will be the point at which the individual prepares to move from the known world of formal education to the unknown world of work and adult life. This critical stage must be prepared for and usually specific preparation begins at about the age of thirteen years. All the aforementioned agencies of guidance should have a role to play during this time when the pupil prepares 'to choose a life not simply a living,' to enjoy the motivation of worthwhile

endeavour and [illegible] begin to experience the consequences of his/her own decisions. In Britain this crucial stage of transition from school to work may occupy three years and will be the responsibility of a careers guidance team consisting of the school co-ordinator of careers work together with his/her colleagues, and the careers officer with any of his/her specialist colleagues who may be required. This team would wisely call upon any of the other identifiable agencies of guidance and use their contributions wherever possible to the common end. The philosophy of guidance is given in Annex A.

Question to Consider

(a) What do we expect from a balanced process of education?

Surveys

The quality and effectiveness of any research project may depend to a large extent upon the researcher's wise choice of method and upon the quality of the research design employed. For the purpose of this paper I would like to identify and describe five different methods of research in order to illustrate the kind of choice a researcher must make. The five categories I have selected are not mutually exclusive but I hope they may be broadly descriptive of the main types of research which could be used in the service of an on-going vocational guidance programme.

In the simplest language one can say that research aims to find out, that it aims to collect information with the highest level of validity and use its results to describe or predict or both. It does not have to be complicated and simple descriptions or predictions deserve simple methods. We must try not to be so obsessed with the rightness and fairness of objective assessment that we ignore, or doubt, all subjective evidence. For example, a school report designed to be comprehensive and compiled with honesty by a teacher who has known the subject of the report over a long period must be accepted, initially at least, as reliable data when a personnel profile is being prepared. The non-acceptance of such subjective data would unwisely eliminate a valuable information source. The same principle could apply to job studies. However the research might be more acceptable if a preliminary conference could be seen to have been held at which the researchers and those supplying subjective, or objective, data at source could get to know one another even to the extent of knowing each other's prejudices, biasses, and sympathetics ; of course, this is not always possible. Any person, or situation, should be able to claim the right to be considered in the round, to have the justice of overall assessment. A single source of information is never valid be that source of information an examination, a test, a report or a questionnaire ; none of these things must ever be expected to stand on its own. What kind of a person do we describe when we say that he is a graduate?

As has already been said the quality of any piece of research will largely depend upon wise choice of method and quality of design. The methods I have selected as examples of common research practice are : inquiries, surveys, experiments, investigations and action research.

Inquiries

Within the present meaning of the term, inquiries are concerned with the collection and collation of information that refers directly to the experience of persons, groups, or organisations and to the facts and viewpoints related to that experience. They may be distinguished from the other methods selected in that no special provision is made for the collection and analysis of quantitative data for the express purpose of detailed statistical analysis or for the testing of hypotheses that are relevant to some in-built design. The quantitative data are invariably of the simplest sort. The outcome of an inquiry is usually a report and a set of recommendations which could have the effect of improving communication and understanding in a general way and acting as a springboard for further research.

An example of a questionnaire used in a simple inquiry as described is given in Annex 'B').

Surveys

Properly, the survey should lead one to expect that some formal design and sampling procedures have been followed, on the basis of which a certain degree of generalisation from the findings should be possible. Of course many surveys, so-called, fall short of the required standards. Surveys may be distinguished from other research methods in that they are concerned with the systematic collection and analyses of qualitative data in respect of a defined population or sample and with the frequency of occurrence of events or phenomena.

Experiments

As distinct from inquiries and surveys, experiments incorporate measures of individual performance in their design. Two sub-categories may be distinguished under this heading : (a) formal or 'scientific' experiments, (b) 'quasi-scientific' experiments. In the former case the research has full manipulative control over the conditions and units in the experiment, whereas in the latter constraints are imposed by the overall situation such that he/she has somewhat less than full control. In Britain, examples of anything approaching a formal or 'scientific' experiment in the classroom or occupational setting are probably not to be found. One of the great advantages of even a 'quasi-scientific' experiment is that the level of generalisation from the result can be high.

Investigations

Due to the circumstances within which the research worker or research team must operate, a large proportion of educational and socio-psychological research comprises a mixture of inquiry, survey and quasi-scientific experiment. For want of a more suitable term this group is categorised as 'investigations'. Typically in investigations, quantitative data from trials that form an integral part of the research design are collected and analysed as well as qualitative data. An example of the former would be test scores and of the latter responses to a questionnaire. The level of generalisation in an investigation is usually low.

Action Research

Action research has as its primary aim the solution of classroom problems rather than the pursuit of scientific knowledge It includes the systematic analysis of a problem ; experimentation with new procedures and techniques and continuous evaluation of any new approach implemented. It is accepted that procedures may be changed during the course of the research. The capacity for generalisation from action research may be low but it has the practical advantages of meeting existing needs and problems directly and of training the teacher in a more scientific and systematic approach towards the solution of problems that face him/her in the classroom situation. Two main levels of action research can be distinguished :

(a) The teacher, or group of teachers, sets up and maintains a liaison with an experienced research worker or 'consultant' who acts as guide on method, analysis, and interpretation.

(b) A research worker or research team may be aware of, and may have carried out pilot work on, classroom problems of common concern to teachers in different localities. The team takes a leading role in the design and planning of the research and maintains a close liaison with the teachers. The accent here is on an intensive involvement of the research workers in the design and planning of the project and in the analysis and interpretation of the data collected with the aim of ensuring good quality results and imparting effective in-service training to the teachers.

The vast majority of work that goes on in this research field within the orbit of vocational guidance in Britain comes under the headings of Inquiries and Surveys, and to a lesser extent, Investigations. Little has been done in the way of controlled experimental work, even of the simplest sort. Well-disciplined action-research studies are also very few in number.

Most of the large-scale research, either inquiries, surveys or investigations, is grant-aided from central government funds and occasionally the Departments of Education and Science and of Employment grant-aid such research jointly. The actual research work is usually done either through the Research and Development Branch of one or the other of the government departments named or through a selected educational establishment with the facilities to mount such an exercise. Moderate-sized research might be undertaken by organisations such as the Institute of Careers Officers, the National Association of Careers and Guidance Teachers, the National Institute of Careers Education and Counselling and the Employment Service Agency. Only research of the most modest kind is done at local level but, informally, a good deal is done in contrast to the little being done in the larger fields.

Attempts are made to register all research being done at national level so that there will be the minimum of overlap and so that gaps in essential knowledge can be clearly seen.

Questions to Consider

(a) If it were decided to mount a research project to investigate the effects of an abrupt and discontinuous role change attendant upon leaving the

world of education and moving into the world of work how would you decide upon the following?

(1) Need for the research ;

(2) Target population ;

(3) Data sources ;

(4) Method of research to be used.

(See Annexe 'C')

(b) A research project is called for which could investigate the relationship between motivation or resistance to employment. Select the most appropriate method of research for this and identify the appropriate target population and data sources.

(c) Prepare a preliminary planning blueprint for a research project you have been asked to initiate which attempts to identify early danger signals of young people at risk in the adult world of employment.

(d) What problems at present prominent in Pakistan would seem to warrant research projects ?

Action Research

Action research has as its primary aim the solution of classroom problems rather than the pursuit of scientific knowledge. It includes the systematic analysis of a problem ; experimentation with new procedures and techniques and continuous evaluation of any new approach implemented. It is accepted that procedures may be changed during the course of the research. The capacity for generalisation from action research may be low but it has the practical advantages of meeting existing needs and problems directly and of training the teacher in a more scientific and systematic approach towards the solution of problems that face him/her in the classroom situation. Two main levels of action research can be distinguished :

(a) The teacher, or group of teachers, sets up and maintains a liaison with an experienced research worker or 'consultant' who acts as guide on method, analysis, and interpretation.

(b) A research worker or research team may be aware of, and may have carried out pilot work on, classroom problems of common concern to teachers in different localities. The team takes a leading role in the design and planning of the research and maintains a close liaison with the teachers. The accent here is on an intensive involvement of the research workers in the design and planning of the project and in the analysis and interpretation of the data collected with the aim of ensuring good quality results and imparting effective in-service training to the teachers.

Techniques

A research project to be successful depends upon the collection of information the validity of which can be vouched for in one way or another, the collation of this information if it originates from several different data source bases, the scientific

analysis of this information and the interpretation of the subsequent results. In short, it sets out to know and then to measure this knowledge against scientifically established norms. It need not be as 'technical' as these foregoing descriptions would seem to suggest.

The methods by which the information is collected and collated and the techniques adopted to prove the validity of this information together with the initial problem of fixing the parameters of the project would be that part of the design of the project which would concern those without the professional or scientific expertise to analyse, interpret and predict.

In the interests of economy of time and space I am going to suggest that details of techniques associated with the observations in the preceding two paragraphs might form the basis of our discussions in group sessions within the orbit of this topic heading. Because of this I shall resist any temptation to be rhetorical at this point and content myself, and I hope my readers or listeners, with aide-memoire items included to promote ideas and enhance this discussion.

1. **Programme Plan for Research Project**

(a) Establishing need for research.

(b) Identifying parameters and possible target population and data sources.

(c) Selecting the sample.

(d) Preliminary discussion with all concerned.

(e) Exploratory instructured interviews.

(f) Individual interviews with pilot questionnaires.

(g) Individual interviews with the whole sample using structured questionnaires.

(h) Acceptance and assessment of subjective material from relevant sources.

(i) Collation of material from all sources.

(j) Analysis.

(k) Interpretation.

(l) Recommendations or Prediction.

The above plan would be suitable for both large and small surveys and also for those which are simple and those which are complex. (See Annex 'C').

2. SOURCES AND METHODS OF COLLECTING INFORMATION

METHODS	SOURCES				
	Teachers	*Pupil*	*Parent*	*Medical Officer*	*Others**
QUESTIONNAIRE (including school report)	Educational Attainments Health General ability Specialised aptitudes	Spare-time activities Subject preferences Family occupations Job preferences	—	Disability Activities to be avoided	—
INTERVIEW	Additional comments on above Interests Disposition Attitudes Circumstances	Health General ability Attitudes Reasons for job preferences Gaps in other aspects	Interests Circumstances Disposition	—	Various, according to special knowledge
TESTS AND OBSERVATION	—	**Observation** Appearance, bearing, speech **Tests** Attainments General ability Interests Specialised aptitudes	—	—	—

*These will include, for particular cases, school psychologist, welfare officer, probation officer and other social workers.

3. Dangers of the Questionnaire

Although useful and time-saving, questionnaires have their limitations. A major limitation is that it is not a very versatile tool but has to be adapted for use with a particular group of people rather than an individual. Thus, in the YES there is a version for more able pupils, and one for those not taking examinations. Some authorities have a simplified version for less able but it is probably true that the reliability and usefulness of replies is very restricted. The time that is saved is also much less with groups of limited intelligence.

1. **To the Pupil**

   (a) He may feel obliged to produce some answer, even though he has not really thought about it very much.

   (b) He may answer some questions because it "fits in" with his answers to others. For example, because he has said he wants to be a farm worker he may feel obliged to say that he also wants to work with animals.

   (c) He may feel that once he has given his answer, he has to stick by what he has said. It is more likely with young people that they will forget what they have written.

   (d) He may give an answer that he thinks the reader will regard as respectable and not what he really feels.

2. **To the Interviewer**

   (a) The main danger is that he will allow the questionnaire replies to determine the structure and sequence of the interview, even to the point of confirming each answer thus wasting much of the time that has been saved.

   (b) He may tend to regard answers as definitive and unchangeable even to the extent of accusing the client of misleading him or being inconsistent if attitudes have changed or he remembers something he forgot to put down.

   (c) He may be led to form judgments about the person which he is reluctant to change, rather than hypotheses which the interview data can support or modify.

   (d) He may tend to overlook the fact that many of the questions are intentionally vague, that what they mean is what the client takes them to mean. For example, 'factory' and 'engineer' are words which cover a very wide field and it is essential before the adviser draws conclusions from the answers, to investigate what his client had in mind.

Aid to help avoid these dangers

1. Mark points for discussion on the completed questionnaire and do not meticulously check each answer.

2. Show the questionnaire to the client let him look through it to make any change or modification he wants particularly if some time has elapsed since he completed it. This minute or so can be useful for the interviewer to bring his notes up-to-date.

3. Take opportunity occasionally to administer the questionnaire to groups of pupils or sit in while a teacher does it. This will draw attention to particular questions which may cause difficulty.

4. Analyse the data on batches of questionnaires from time to time

5. Introduce a questionnaire topic by asking for example "What sorts of job are you thinking about **now**?" rather than "I see you put down....."

ANNEX 'A'

EXTRACTS TAKEN FROM A MONOGRAPH ON 'THE PHILOSOPHY OF GUIDANCE'

by

ERIC LORD

1. Guidance in the total sense is **the** essential element in education.
2. All schools and colleges, by their very nature, should be environments of care.
3. It has always been the case in all societies, civilised or otherwise, for a caring adult generation to assume a guidance role whereby the young of that society are taken as skillfully as possible from the dependent stage of childhood to the independent stage of manhood.
4. A successful journey from childhood to manhood depends upon the stability of both ends of the 'journey'.
5. Where stability is lacking at either end, the in-between period of adolescence will be turbulent providing the right conditions for personal inadequacy and social delinquency.
6. With some of our young people adolescent problems are the result of an unstable childhood and an unstable anticipation of manhood caused by their inability to make sense of the future.
7. The adult agencies of care and guidance have traditionally included the home, the school, the community, the church, the youth service, the workplace and the peer-group.
8. In modern times, additional agencies, the mass media and popular entertainment, have added their influences with growing significance.
9. The influence of any one of these agencies can be advantageous or detrimental to the desired development of the vulnerable young adult.
10. Primitive societies have often taken this task of 'education' a good deal more seriously than their so-called civilised counterparts.
11. In the foregoing context, education means guiding a young person through the several growth tasks he needs to pursue in order to enjoy all-round development, that is the move towards the ideal of being a whole person able to benefit from life's journey.
12. The natural growth tasks of any human being are :
    (a) To achieve physical maturity and reach as near as possible full physical potential.

(b) To achieve emotional maturity and progress from the emotions of the child to those of the balanced adult.

(c) To achieve social maturity and have an adult relationship with people and the environment in which one meets them.

(b) To achieve intellectual maturity and to reach as near as possible one's own intellectual potential without being pushed or held back to assume someone else's.

(e) To reach an adult, responsible, attitude to sex and understand boy and girl and man and woman relationships.

(f) To become emancipated from home control and learn how to be self sufficient.

(g) To select, by his own decision, a satisfying occupation **at the right level** together with high motivation to the work ideal. Also to understand the relationship between local and national economies and an individuals' personal employment prospects.

(h) To learn to use leisure happily and profitably.

(i) To learn to identify self through strengths, weaknesses, abilities, attainments, interests, values and attitudes.

(j) To find a satisfying philosophy of life.

13. In addition educators may need to combat the evil aspects of home, community and the media apparent in the twentieth century — immorality, avericiousness, energy, selfishness and brute power.

14. For some young people the only positive agencies of education, or guidance, left are the school, the careers service and the youth service.

15. In these cases, the excessive devotion of any school to the achievement of intellectual maturity is unreasonable particularly if the intellectual maturity desired for one young person is that which is only truly relevant for another.

16. Young people in their adolescent journey need to be given tasks they can do and need to be praised for doing them.

17. Real education is the attempt to achieve **all** the growth tasks mentioned in item 12 above and the setting up of defences against the evils mentioned in item 13.

18. Within this total philosophy of guidance may be found careers education and vocational guidance (item 12) which are significant parts of the whole needing significant attention.

19. Careers education helps a young person 'to choose a life, not simply a living'.

20. Schools, colleges and youth clubs as professional agencies of education must accept a major responsibility for education in this total sense.

21. Guidance education as expressed in item 17 above also contains social education.

22. Social education prepares a young person to take his place intelligently and usefully in society.

23. Education, that is guidance, must be tailored to suit the needs of each individual even though groupings may be necessary in the interests of economy.

24. Every parent, citizen, teacher, youth worker, religious leader and mass media producer has a guidance role to play as part of their professional and/or social contribution.

25. Every teacher in school has a guidance role to play.

26. Total, balanced, development is only possible if the young person proceeding from childhood to manhood takes this journey knowing who is in charge ; he must know 'who is driving' in his home, his community, his classroom, his school, his club and his country.

27. One of the most important needs during this dynamic period of development is for the young person to believe in himself and the future.

28. It is unnecessary to say that not all adults reach manhood fully matured in all aspects.

29. It is more difficult to educate for wisdom than for intelligence.

30. Wisdom flourishes in a state of all-round maturity ; intelligence is often identified with the results of objective tests and its quality is determined by the nature of these tests and the use to which they are put.

ANNEX 'B'

'CAREERS EDUCATION IN SECONDARY SCHOOLS'
(EDUCATION SURVEY 18 D.E.S.) 1973

The Questionnaire

The references in the right hand column are to paragraph numbers or tables in the text.

School details			*Refs*
1. Name of LEA			
2. Name of School.....			
3. Telephone No. for enquiries.....			
4. LEA and School number	LEA No.	School No.	
5. Type of School		Tick	
Modern	1		Table 1, 9, 10 91. 121-123
Grammar	2		
Technical	3		
Comprehensive 11-18 (or 12-18)	4		
Comprehensive 11-14	5		
Comprehensive 14-18	6		
Comprehensive 13-18	7		
Comprehensive 11-16 (or 12-16)	8		
Sixth Form College	9		
Other Secondary School	10		
Special School (If special school, state category of school)	11		

6. Rural/Urban

Refs

	Tick
Rural	1
Urban	2
Urban/Rural	3

7. Number of pupils aged 11 or over on 31 August 1971

	Insert number
Boys	
Girls	
Total	

If 0 write 0.

8. Number of pupils aged 16 or over on 31 August 1971

	Insert number
Boys	
Girls	
Total	

Staffing and organisation of careers education in the school

Careers teachers

9. (a) How many members of staff are designated as careers teachers?

Table 5, 94, 124

		0	1	2	3	4	5	6	7	8 or more
Tick	Male									
	Female									
	Total									

(b) How many of these receive special allowances for careers work?

Table 6, 37, 125

		0	1	2	3	4	5	6	7	8 or more
Tick	Male									
	Female									
	Total									

16136—8

		Refs
10.	Is the senior careers master mistress a head of department?	Table 7, 38, 125

	Tick
Yes, status solely for careers education	1
Yes, but status not solely for careers education	2
No	3

11.	What allowance is the senior careers master/mistress given?		Tables 8 and 9, 38, 125

		Tick
None		1
Graded	1	2
	2	3
Post	3	4
Head of Department Allowance	A	5
	B	6
	C	7
	D	8
	E	9

12. How much time in total is given for :

(a) Careers teaching? 39, 126

	Tick
None	1
Up to 1/5 of full-time	2
1/5 + to 2/5 of full-time	3
2/5 + to 3/5 of full-time	4
3/5 + to 4/5 of full-time	5
4/5 + to full-time	6
More than the equivalent of one person full-time	7

		Refs.
(b) Other careers work (e.g. administration, writing reports, references, etc.)?		39, 126
	Tick	
None	1	
Up to 1/5 of full-time	2	
1/5 + to 2/5 of full-time	3	
2/5 + to 3/5 of full-time	4	
3/5 + to 4/5 of full-time	5	
4/5 + to full-time	6	
Full-time +	7	
They are not calculated separately from other responsibilities	8	
(c) Total time of (a) and (b) above		Table 10 39, 55, 57, 126
	Tick	
None	1	
Up to 1/5 of full-time	2	
1/5 + to 2/5 of full-time	3	
2/5 + to 3/5 of full-time	4	
3/5 + to 4/5 of full-time	5	
4/5 + to full-time	6	
1 full-time up to 2 full-time	7	
2 full-time or more	8	
They are not calculated separately from other responsibilities	9	

13. How many staff have attended careers or counselling courses :

Refs 42-44 94, 95, 127

	Tick
(a) of one term or longer?	0
	1
	2
	3
	4
	5
	6 or more

	Tick
(b) of more than a week but less than a term?	0
	1
	2
	3
	4
	5
	6 or more

	Tick
(c) of one to five days?	0
	1
	2
	3
	4
	5
	6 or more

The same teacher should not appear more than once in a, b, c above.

		Tick	*Refs*
14.	How many teachers have been released to industry?		87
		0	
		1	
		2 or more	

Counsellors

15.	(a)	How many teachers designated as counsellors are there in the school with special responsibility for careers as well as for personal and social guidance?	Insert number a	7, 128
	(b)	How many teachers designated as counsellors are there in the school with responsibility for personal and social guidance only? If 0 write **0**.	b	
16.		How many of these counsellors have attended special training courses lasting :	Insert number	129
		one year or more?		
		less than a year?		
		no training?		

		Tick	
17.	What approximate proportion of his/her/their time in total is allocated for personal counselling as distinct from vocational guidance?		
	up to 1/5 of full-time	1	
	1/5 + to 2/5 of full-time	2	
	2/5 + to 3/5 of full-time	3	
	3/5 + to 4/5 of full-time	4	
	4/5 + to full-time +	5	

114

18. How do careers teachers regard placing in employment?

	Tick	*Refs*
as a major part of their duties?	1	80
as a minor occasional part of their duties?	2	
not part of their duties?	3	

Facilities within the school for careers education

19. What is the average annual expenditure on careers education including visits?

	Tick	Table 12, 50, 130
£ 0-25	1	
£ 26-50	2	
£ 51-75	3	
£ 76-100	4	
£ 101-150	5	
£ 151 and over	6	

20. How many rooms are available exclusively for careers work?

Tick	Table 11, 45-49, 96, 131
0	
1	
2	
3 +	

21. Does the accommodation used for careers work have :

	Yes	No	Table 13, 51, 52, 96, 131
Tick	1	2	
(a) an external telephone?			
(b) an internal telephone?			
(c) storage space?			
(d) filing equipment?			

Careers publications

		Refs
22. What is the approximate annual expenditure per head by the school for careers literature?	Tick	53, 132
Nil	1	
-3p	2	
3 + to 5p	3	
5 + to 7p	4	
7 + to 9p	5	
Over 9p	6	

23. Are careers publications :	Tick	Yes 1	No 2	54, 55, 97-100, 132
(a) openly displayed?				
(b) readily accessible?				
(c) available for borrowing?				
(d) documented and catalogued?				
(e) not available in the school?				
(f) supplemented by locally prepared information sheets?				

Careers education aids

24. Please tick if use is made of:	Tick	Yes 1	No 2	57. 99. 101. 133
(a) television				
(b) radio				
(c) films				
(d) film strips, slides, etc.				

25. Is secretarial assistance allocated to careers education?	Tick	Yes 1	No 2

Relations between school and outside bodies concerned with careers education

Refs

Youth Employment Service

26. On average on how many occasions during a year do careers officers visit the school?

Refs: Table 14, 60, 102, 137

	Tick
Never	1
1-2 times a year	2
3-6 times a year	3
7-12 times a year	4
13-18 times a year	5
19-24 times a year	6
25 + times a year	7

27. Please tick if they assist :

Refs: 61-63, 65-66, 135-136

	Tick	Yes 1	No 2
(a) in planning careers programmes			
(b) in planning work visits			
(c) in planning work experience			
(d) in planning talks to parents			
(e) by giving talks and holding discussions with pupils			
(f) by giving talks and holding discussions with parents			

28. Does the head discuss careers education with the careers officer?

Refs: 64

	Tick
Regularly	1
Occasionally	2
Never	3

			Refs
29.	Do careers officers meet members of staff (other than careers staff)?	Tick	64. 140
	At staff meetings	1	
	Informally	2	
	Never	3	
30.	When does the careers officer generally meet the pupils for the first time?	Tick	
	in the second year (12-13 years of age)	1	67, 103-106 138
	in the third year (13-14 years of age)	2	
	in the fourth year (14-15 years of age)	3	
	in the fifth year (15 + years of age)	4	
31.	Are case conferences held by members of staff on pupils and their careers?	Tick	
	Yes, with careers officers taking part	1	
	Yes, without careers officers taking part	2	
	No	3	
32.	(a) If yours is a special school, is use made of such agencies as Industrial Rehabilitation Units, assessment units of voluntary societies, and others?	Tick	116-118
	Yes	1	
	No	2	
	Not applicable	3	
	(b) If the answer to 32(a) is YES, please specify below the names of the agencies used :		

Further and higher education

				Refs
33.	Do members of the careers team visit establishments of higher and further education?	Tick		70, 107, 142
	As a regular practice	1		
	Occasionally	2		
	Never	3		
34.	Is there in the school a liaison officer with establishments of higher and further education?	Yes	No	71, 107
		1	2	
	Tick			
35.	Are there any linked courses?	Yes	No	76, 107, 143
		1	2	
	Tick			
36.	Are there any organised visits to colleges of further education?	Tick		71, 107, 142
	Yes — For all pupils	1		
	Yes — For some pupils	2		
	No	3		
37.	Apart from careers conventions do speakers visit annually and talk about courses at :	Yes	No	72, 77, 78, 144, 145
	Tick	1	2	
	Universities and polytechnics?			
	Colleges of further education?			
	Colleges of education?			

Industry, commerce and the professions

			Refs
38.	Apart from careers conventions are there visiting speakers from industry, commerce and the professions?	Tick	81, 108, 146
	Annually	1	
	Occasionally	2	
	Never	3	

		Refs
39. During their school life are organised visits to firms made by :	Tick	82, 83, 147
all pupils ?	1	
some pupils ?	2	
no pupils ?	3	
40. During their school life is work experience arranged for :	Tick	84, 109, 148
all pupils ?	1	
some pupils ?	2	
no pupils ?	3	

School's philosophy of careers education

	Yes	No	
41. (a) Has your school a curriculum committee (or academic board) ?	1	2	13, 153
(b) If the answer to (a) is YES, is a member of the careers staff included ?	Tick		
(c) If the answer to (a) is YES, does a member of the careers staff ever attend ?			
42. Is preparation for work incorporated in the teaching of specific subjects ?	Yes	No	16, 153
Tick	1	2	
43. (a) Are there periods devoted specifically to careers education ?	Yes	No	Table 2, 17, 154
	1	2	
Tick			
(b) If answer to (a) is YES, is this part of :	Tick		110-114
a special leavers' course ?	1		
a social studies course ?	2		
any other course ?	3		

		Yes, for all	Yes, for some	No	
44.	Does the curriculum include careers education :				Table 3 Pie chart 110-114
	Tick	1	2	3	
	(a) in the third year (13-14)?				
	(b) in the fourth year (14-15)?				
	(c) in the fifth year (15-16)?				

45.	Does the careers programme followed by most pupils include the study of :			18, 155
		Yes	No	
	Tick	1	2	
	(a) the whole range of occupations open to them?			
	(b) personal and educational qualifications required for specific occupations?			
	(c) school courses related to occupations?			
	(d) opportunities in industrial training?			
	(e) opportunities in further education?			
	(f) local industry?			
	(g) aspects of working life?			

46.	Are there special careers programmes for pupils of different abilities?	Tick	19, 110-114
	Yes	1	
	No	2	
	Not applicable	3	

47.	If yours is not a special school but has slow learning or handicapped pupils are special arrangements made for them in careers education?	Tick	19, 110-114 157
	Yes	1	
	No	2	
	Not applicable	3	

				Refs
48.	Are members of the special services such as the school health service and the child guidance services used in giving detailed advice on careers to individual pupils?	Yes	No	116-118
	Tick	1	2	
49.	To assist in careers education does the school use :	Yes	No	
	Tick	1	2	30, 31
				115
	(a) any type of pupil record form?			
	(b) any type of objective ability tests?			
	(c) a vocational interest questionnaire?			
50.	Selection of courses (below age 16)	Yes	No	22,
	(a) In what year/s do important choices between subject options take effect? Tick	1	2	158
	13-14			
	14-15			
	15-16			
	Not applicable			
		Yes	No	
	(b) Are career implications of curriculum changes discussed with : Tick	1	2	26. 28. 158
	Pupils?			
	Parents?			
	Neither?			
51.	Selection of courses (16 +)	Yes	No	26
	(a) For pupils staying on after the fifth year (16+), are career implications of courses to be followed discussed with : Tick	1	2	27. 28. 158
	Pupils?			
	Parents?			
	Not applicable			

122

		Tick	Refs
(b)	Do courses for pupils after the fifth year (16+) include careers education?		27
	Yes, for all	1	
	Yes, for some	2	
	No	3	
	Not applicable	4	

Careers conventions

		Tick	Refs
52.	Do pupils attend careers conventions?		89, 159
	Yes, organised by the school	1	
	Yes, organised by the careers service	2	
	No	3	

Vocational guidance interviews

		Yes	No	Refs
53.	Are school leavers commonly interviewed individually more than once by the careers officer?			68, 116
	Tick	1	2	
54.	Are 'A' level candidates interviewed by the careers officer while in the sixth form?	Tick		
	Yes, all	1		
	Yes, in individual cases	2		
	No	3		
	Not applicable	4		
55.	If 'A' level candidates are so interviewed, does the careers officer see them more than once?	Yes	No	68
	Tick	1	2	

Pupils and parents

		Yes	No	Refs
56.	Are there parents' meetings at which careers education is discussed?			Table 4, 28, 119
	Tick	1	2	

57. If the answer to 56 is YES please indicate the number of meetings at which careers are discussed and to which parents are invited during the year when the pupil is

	Insert number	*Refs*
		28, 119, 159
aged 13 (3rd year)		
aged 14 (4th year)		
aged 15 (5th year)		
aged 16+ (6th year)		

58. If the answer to 56 is YES, what proportion of parents, on average, attend meetings for parents of pupils of 13 and over?

	Tick	
up to $\frac{1}{4}$	1	28, 119, 159
$\frac{1}{4}$ up to $\frac{1}{2}$	2	
$\frac{1}{2}$ up to $\frac{3}{4}$	3	
$\frac{3}{4}$ or more	4	

59. Are any careers courses specifically provided by the school for the parents only?

	Yes	No
Tick	1	2

LEA NO

School No

Please add comments which amplify or explain answers which you consider inadequate as they stand:—

ANNEX 'C'

LOOKING FORWARD TO WORK
GENERAL SUMMARY AND CONCLUSIONS

The aims and design of the study

This report is based on results obtained at the first of three stages of a follow-up study of younger male school-leavers, carried out on behalf of the Central Youth Employment Executive in ten areas in England and Wales. The general aim of the enquiry was to provide detailed information about what happens during the period of transition and adjustment to a new way of life which begins shortly before a youngster leaves secondary school and extends over the early part of his employment career.

The first stage of data-collection involved interviews with a sample of 1733 boys in their fourth and fifth years of secondary education, carried out as close as possible to the date on which they left school. Parents, teachers and Youth Employment Careers Officers were also contacted at this stage and information on a wide range of topics connected in one way or another with employment plans and prospects was collected.

The present report uses the information so obtained to examine four main types of factors though likely to influence the boys' thinking about employment and their adjustment to the world of work. These are :

1. Individual ability, personality and attitudes, as revealed by the boys' own replies to interview questions and by assessments of them made by their teachers.
2. Family background and environment, as revealed through interviews with the boys' parents.
3. School environment, with special reference to institutional differences between schools and to careers work carried on at or by them. Information on these topics was obtained through interviews with head and careers teachers at schools attended by boys in the main sample and with members of the local Youth Employment Service.
4. Area employment environment, as represented by the ten different types of area within which the sample of school-leavers was drawn.

The report describes how methods of measuring factors of these four types were developed and goes on to show how they jointly and severally influenced individual school-leavers' approach to, and prospects in, employment. Forthcoming reports will draw upon data obtained at Stages II and III, as well as at Stage I, of the enquiry to show how these background factors combined with those operating in the actual work situation to influence the course of the boys' early employment careers.

(Full report available if required).

4. JOB STUDY QUESTIONNAIRES

JOB SPECIFICATION FIRM/ORGANISATION DATE OF STUDY

DESCRIPTION/TITLE NAME

ADDRESS

TELEPHONE NO.

NO. OF WORKERS

AGE OF ENTRY

SECTION I

DUTIES AND RESPONSIBILITIES

1. Main Duties
2. Responsibility for merchandise, money, equipment, materials, work or safety of others
3. Employer's account of most common difficulties experienced by adult workers and new entrants in their main or subsidiary duties
4. Adults and new entrants account of their most common difficulties
5. Employer's account of the most common reasons for staff turnover

SECTION II

REWARDS AND PROSPECTS

1. Wage rates? (excluding overtime and bonus):

15 years
16 ,,
17 ,,
18 ,,
19 ,,
20 ,,
21 ,,

2. Average weekly earnings? (including overtime and bonus):

15 years
16 ,,
17 ,,
18 ,,
19 ,,
20 ,,
21 ,,

331 126

6130—9

3. Average weekly adult earnings in the same type of work?

25 years
30 ,,

4. What are the prospects of promotion?

5. Holiday arrangement and welfare?

SECTION III

PERSONAL REQUIREMENTS

1. SPECIAL ABILITIES — These are abilities which are partly, but not wholly, dependent on effective general intelligence.

		RATING		
		Essential	Preferable	Irrelevant
(a) VERBAL	Ability in the use and understanding of the English language and skill with words as an expression of ideas			
(b) CLERICAL	Speed and accuracy in the completion of written paper and pencil tasks			
(c) NUMERICAL	Ability to grasp the four rules of number (including the application to fractions and decimals)			
(d) SPACE PERCEPTION	Ability to see and recognise spatial relationships			
(e) MECHANICAL	Ability to recognise the effect of the application of basic mechanical principles (e.g. mass, leverage, speed)			
(f) HAND SKILLS	Ability to acquire hand or hand and arm skills			

2. INTERESTS Personal interests may tend to indicate the broad types of activity which appeal to the individual. They are inclined to be largely superficial, sometimes trivial, and rarely serve to indicate occupational suitability as a whole. They do, however, point to the class of work in which a person may find certain aspects rewarding provided they are suitable for it in other respects.

		RATING		
		Essential	Preferable	Irrelevant
(a) PRACTICAL	Interest in "doing" and "making" activities			
(b) SOCIAL	Interest in people and their activities			
(c) METHOD	Interest in details and procedures			
(d) IDEAS	Interest in theories and academic matters			
(e) ECONOMIC	Interest in money, trade and possessions			
(f) DOMESTIC	Interest in home and family life			
(g) PHYSICAL	Interest in active, physical pursuits			
(h) AESTHETIC	Interest in art and beauty			
(i) ESCAPIST	Unrelated interests which may indicate desire to retreat from normal daily routine			

SECTION IV

EDUCATIONAL REQUIREMENTS

1. Is there a minimum educational requirement imposed by the employer?
2. Do you think it is justified?
3. Employer's account of the most desirable educational background?
4. If there is no minimum educational requirement, what level of attainment do you consider desirable?

SECTION V

PHYSICAL AND TEMPERAMENTAL REQUIREMENTS

	RATING		
(a) PHYSICAL	Essential	Preferable	Irrelevant
ROBUSTNESS — (i.e. general physical strength)			
NERVOUS SYSTEM — (well controlled and balanced nervous response)			
MOBILITY — (freedom from any impairment of ability to move about due to cardiac or circulatory conditions)			
EXPOSURE TOLERATION — (fitness to work out-of-doors in all normal weather conditions)			
CO-ORDINATION — (precision in movements requiring quick perception and bodily adaptation)			
RESPIRATORY SYSTEM — (freedom from bronchial or asthmatic tendencies or susceptibilities to fumes and dust)			
NORMAL VISION			
NORMAL COLOUR VISION			
NORMAL HEARING			
NO DEFECTS OF TRUNK			
NO DEFECTS OF UPPER LIMBS			
NO DEFECTS OF LOWER LIMBS			
NO DEFECTS OF SKIN			
NO DEFECTS OF DIGESTION			
NO DEFECTS OF SPEECH			
(b) TEMPERAMENT — Temperament may be regarded as the sum of various tendencies, both innate and acquired, which predispose an individual to certain types of behaviour			
EMOTIONAL STABILITY — (the ability to prevent emotional tendencies from influencing actions)			
SOCIABILITY — (the ability to mix with others, including strangers)			

SECTION VI

METHODS OF TRAINING

1. Is previous full-time vocational training necessary or advisable?
2. If so, where can it be undertaken?
3. Is systematic training provided by the employer?
4. If not, how do new entrants learn their job?
5. Are block release, part-time day-release and evening classes available for this work?
6. If so, what are :
   (a) Names of available colleges
   (b) Description of appropriate courses
   (c) Qualification
7. Has an Industrial Training Board yet been set up for this industry?

SECTION VII

WORKING CONDITIONS

	No	Sometimes	Yes
1. Is the place of work :			
Dusty			
Damp			
Noisy			
Confined			
Oppressive			
Cold			
Dark			
Cheerless			
2. Are the main duties :			
Unvarying			
Heavy			
Solitary			
Hazardous			
Dirty			
Wet			
3. Do the main duties offer any of the following :			
Travel			
Independence			
Team-work			
Prestige			
Shift-work			

4. What are the normal hours of attendance at work and. on which days of the week?

ADDITIONAL REMARKS

CONFIDENTIAL

JOB STUDY WORK SHEET

Name of Firm	Job Studied .....
.....	by.....on .....

NOTES : (1) **Before visit** (a) Carefully "read-up" all relevant literature.

(b) Consult Employer's Register and vacancy cards (N.B. turnover in relation to type of young person employed and apparent reasons for success or failure in the occupations)

(c) Familiarise yourself with the "technical jargon" of occupation (can be gleaned from literature).

(d) Make purpose of visit plain to employer.

(2) **On visit** (a) It is important to talk to people actually doing the job.

(b) Make notes under the following headings :

Questions to be considered	Notes
1. DUTIES AND RESPONSIBILITIES OF POST	
(a) What are the main routine duties in this occupation? (Information to be obtained partly from (i) pre-visit study of literature (ii) observation when on visit (iii) conversation with employer and employees).	

Questions to be considered	Notes
(b) What special responsibility has the worker for the safety, health or the work of others, or for equipment or material? (only serious responsibilities should be noted which are not immediately apparent or which may present difficulties to many — include also responsibilities arising from occasional or emergency duties).	
(c) Which duties and responsibilities feature most prominently in the employer's accounts of the commonest difficulties of workers?	

2. WORKING CONDITIONS AND REWARDS

(a) Is the work place inclined to be dark : damp ; dusty ; drab ; noisy ; stuffy ; hot; cold?	
(b) Does the work itself tend to be heavy : dirty ; unvaried ; finicky ; dangerous ; solitary ?	
(c) Does the work offer opportunities for companionship: teamwork: independence: rivalry: prestige?	
(d) What do the workers say they like **most** about the work?	
(e) What do the workers say they like **least** about the work? (Note relevance to 1(c) above)	
(f) Is there anything else to be noted about working conditions or rewards?	

Questions to be considered	Notes
3. REQUIREMENTS	
(a) **Physical requirements** Is it particularly important that the worker should be taller, robuster than most : should be of better appearance, smarter bearing, clearer speech: should have cleaner hands : should be right handed: should have normal hearing, vision, colour vision : should be free from defects in trunk and limb movements : from respiratory, digestive, skin complaints ?	
(b) **Attainments** What general or particular attainments educational or occupational) are needed for entry to the occupation ; and those needed for recognition as qualified in it?	
(c) **General intelligence** For what range of general intelligence is the work suitable?	
(d) **Specialised Aptitudes** Can the work make use of mechanical aptitude ; facility with words ; facility with figures ; talent for drawing ; talent for music?	
(e) **Interests** Can the work make use of intellectual ; practical-constructional ; physically-active ; social: artistic interests?	
(f) **Disposition** Has the worker to be more acceptable, better at influencing others, more dependable, more self-reliant than most?	
(g) **Circumstances** Does the work call for outlay on tools or clothes ; or for mobility?	

CAREERS ADVISORY AND YOUTH EMPLOYMENT SERVICE
JOB STUDY

Job	STAGE
DEPARTMENT	FIRM
ENTRY AGE	Number, Sex or Workers:
AGE RANGE	Date of Job Study
	By

DUTIES AND RESPONSIBILITIES

1. **Main routine duties**

2. **Responsibility for the safety, health, work of others**

   Responsibility for equipment, materials.

3. **Duties and responsibilities most prominent in employers' accounts of common difficulties of workers.**

WORKING CONDITIONS AND REWARDS not recorded elsewhere

4. **Is the work place**

Dark	Noisy
Damp	Stuffy
Dusty	Hot/Cold
Drab	

5. **Is the work itself**

Heavy	Finicky
Dirty	Dangerous
Unvaried	Solitary

6. **Does it offer**

Companionship	Rivalry
Teamwork	Prestige
Independence	

7. **What do the workers say they like about the work?**

8. **What do they say they dislike about it?**

9. **Is there anything else to be noted about the working conditions and rewards?**
   e.g. does it entail living in, shift work, weekend work, occasional short-time work?

REQUIREMENTS

10. **Physical**

Taller	Normal hearing
Robuster	Normal visual acuity
Better Appearance	Normal colour vision
Smarter bearing	No defects in trunk movements
Clearer speech	No defects in limb movements
Cleaner hands	No respiratory complaints
Right handed	No digestive complaints
	No skin complaints.

11. **Attainments**

Educational
Occupational

12. **General Intelligence**

Top 10%
Next 20%
Middle 40%
Next 20%
Bottom 10%

13. **Special Aptitudes**

Mechanical	Figures
Manual	Drawing
Works	Music

14. **Interests**

Intellectual	Social
Prac-Constructional	Artistic
Physically Active	

15. **Disposition**

More acceptable	More Dependable
More influential	More Self-Reliant

16. **Circumstances**

Premium	Clothes
Tools	Mobility

17. **Additional Notes**

18. **Recruitment**

19. **Qualifications**

20. **Arrangements for Training**

21. **Promotion and Transfer**

G.L.123

PAPER 1.

SPEEDCOP — A framework for looking at occupations

1. SURROUNDINGS

Where you work

(1) Will you be working indoors or outdoors?

(2) Is it in an office, shop, factory, etc.?

(3) Will it be very hot or cold?

(4) Is it clean or in a dirty place?

(5) Are there dangers or fumes, noise, etc.?

2. PROSPECTS

What might this job lead to

(1) What prospects for promotion are there?

(2) Is it a secure job?

(3) Are there opportunities for this job in the future?

(4) What are the future pay prospects?

3. ENTRY AND TRAINING

What you need to get in ; what training is available

(1) What qualifications do you need?

(2) Are any special physical qualities important? (e.g. eyesight, age)

(3) Are any particular aptitudes needed? (e.g. nimble fingers)

(4) What personal qualities might be useful? (e.g. friendliness)

(5) What training is provided or necessary?

4. EFFECTS

What effects on your life this job may have

(1) What limits might the job impose on your free time?

(2) Would you have to travel away from home or even move house to find this job?

(3) Does it affect the way you lead your life outside work?

(4) Do you gain respect from others through doing this job?

5. **DESCRIPTION**

What tasks you have to do

(1) What field of work is this job in? (e.g. hospital, industry)

(2) What tasks are involved? (e.g. serving customers, adding up)

(3) What routine and variety of work is there?

(4) Can you specialise in this job? (e.g. clerical jobs, filing)

(5) How much responsibility might you have?

CONDITIONS

What your employers provides and what you have to agree to

(1) What is the pay?

(2) What hours do you work?

(3) What holidays do you have?

(4) What facilities are available? (e.g. canteen, sports, tools, uniforms)

(5) What rules do you have to obey? (e.g. no smoking, Trade Unions)

ORGANISATION

What kind of organisation

(1) What kind of organisation? (e.g. production, service)

(2) What image does it have? (e.g. traditional, modern)

(3) Is it a large concern or a small one?

(4) Is your work a skill or a craft?

PEOPLE

Who you work with

(1) What relationship do you have with your boss?

(2) Are you working alone or with others?

(3) Are other workers your age or older?

(4) Are they all the same sex?

(5) Are you dealing with customers or patients?

(6) Do you meet new people or work with familiar faces?

PAPER 2

SPEEDCOP PERSONAL WORKSHEET

This worksheet is for you to keep your own record of what kind of work situations you like to be in. You may not be thinking yet about the sort of job you will be in when you leave school, but you know about work you do already, such as work in school, jobs at home or at weekends. You may like to think about all or any of these while working through the questions. Or you may prefer to imagine a work situation you could be in.

Remember, there are no right or wrong answers ; the information is for **you** to use as a record of what you are like, and what you might like (or dislike) at work.

1. SURROUNDINGS

1. Do I like being indoors or outdoors most of the time ?

   .....

2. What sort of place do I like to work in ? (e.g. sitting in an office/behind a shop counter/in a factory/any others ?).....

   .....

3. Do I mind if it's very hot or cold where I work ? (e.g. near a blast furnace/ on a building site in winter/on a delivery round).....

   .....

4. Do I mind if the place I'm working in is not very clean ?

   .....

5. There may be dangers where I work. Do I mind ? (e.g. falling objects/ working at heights).....

   .....

6. It may be noisy or smell nasty where I work. Would this affect me ?

   .....

II. **PROSPECTS**

1. Do I need to know I can do this work in the future too?

.....

2. Do I want this work to lead on to further opportunities?

.....

3. How concerned am I about pay in the future?.....

.....

4. I might have to do more training for promotion. Would I be prepared to? .....

5. Would it matter to me If was 'laid off' or 'between jobs' at times? (e.g building/acting).....

III. **ENTRY AND TRAINING**

1. What kind of thing am I best at doing? (e.g. using my hands/work with numbers/keeping things in order/talking with people, etc.)

.....

2. Do I have any special physical abilities (or lack any)? (e.g. what sort of eyesight, hearing, strength).....

.....

.....

3. What personal qualities of mine are useful? (e.g. friendliness/tact/good temper (or not)/cheerfulness/patience) .....

.....

4. Will I have any special qualifications? (e.g. exam certificates)

.....

.....

5. Do I want to be trained for my work?.....

.....

.....

IV. **EFFECTS**

1. Does it matter if work takes up some of my evenings or weekends?

   .....

2. Some work means travelling away from home or even moving to live away. Would I mind? (e.g. lorry driving/building work).....

   .....

3. Some work affects the way we lead our lives outside work hours. (e.g. teacher/doctor/policeman/ are expected to behave responsibly in the community). Would this matter to me?.....

   .....

4. Is it through work that I want to be respected? If so, does my work help me to be proud of myself, and for other people to respect me?,.....

   .....

V. **DESCRIPTION**

1. What kind of tasks do I like doing? (e.g. serving customers/adding up/ thinking/speaking/working with machines).....

   .....

   .....

   .....

2. Do I like to know exactly what I am to do and stick to it? Or do I prefer changes in the daily pattern?.....

   .....

   .....

3. Do I like to do a special kind of work, to make a speciality of my work? (e.g. work on one machine/in office work just filing and typing/teaching just one subject).....

   .....

   .....

4. **How much responsibility do I like for what I am doing? Do I like to work under someone else or would I one day like to have more responsibility for my work, and perhaps other people's?**.....

.....

.....

5. Do I need someone else to show they recognise what I have done?

.....

.....

6. What sort of field of work might I be happy in? (e.g. industry/education/hospitals/shops).....

7. How important is it for me to be **interested** in the kind of work I am doing?.....

.....

VI. CONDITIONS

1. Pay. What sort of pay do I expect? How important is it to me?

.....

.....

2. Hours. What hours do I want to work?.....

.....

.....

3. Holidays. How much do I expect?.....

.....

.....

4. Benefits. What kind of benefits are important to me? (e.g. sports clubs canteen/uniforms).....

.....

.....

5. Rules. Can I accept them? (e.g. no smoking/use of safety equipment/

.....

.....

VII. ORGANISATION

1. Do I like being part of a big or a small concern?.....

.....

2. The image of the organisation may be modern/traditional/friendly efficient. Will this affect me?.....

.....

3. Organisations are usually either for producing goods and making profits (e.g. car producers) or for giving a service to people (e.g. health, schools) and sometimes making profits, (e.g. Post Office). What kind of organisation do I want to belong to?.....

.....

4. Is it important that my own work is a skill or craft of some kind?

.....

VIII. PEOPLE

1. Do I like working on my own or with other people?.....

.....

.....

2. Do I like being with people my age or younger/older people?

.....

.....

3. How would I feel about working with people all the same sex, or mixed?

.....

.....

4. Getting on with the person in charge. Do I need to be on friendly terms, or is he/she just there to give orders for me to carry out?

.....

.....

5. Do I like dealing with the public? If so, as customers, patients?.....

.....

.....

6. At work do I like to be surrounded by familiar faces everyday or would I be happy meeting new people all the time?.....

.....

.....

Any other questions you think important,

CAREERS IN THE CURRICULUM THIRD YEAR

General

1. The Third Year is a year of vital educational decision. Pupils of this age group lack the experience to make such a decision unaided. Vocational guidance in the Third Year must provide a substitute for this lack or experience.

Aims

2 (a) To help pupils gain a realistic understanding of themselves and the world in which they live.

(b) To help pupils realise their own potential.

(c) To teach pupils the art of assimilation and assessment of sound facts.

(d) To teach them the art of decision-making, especially in relation to courses and careers.

Programme

3. The types of topics to be dealt with are outlined below.

4. **Introduction**

(a) Why Careers education is on the timetable.

(b) Importance of choices made in the Third Form.

(c) Choices of careers related to the ladder of educational opportunity.

(d) Sources of information — Form Tutor, House Staff, Careers Library, Careers Staff.

5. **Decision-Making Techniques**

(a) How we make decisions.

(b) Decisions already made.

(c) Decisions to be made in the future.

(d) Practice of a number of different types of decision-making.

6. **Getting to Know Yourself**

(a) What do you know about yourself? How do you see yourself? How do others see you?

(b) Discussions on how a pupil can arrive at a self-assessment — personal and social; hobbies and interests; recreational; educational and vocational potential.

(c) Practice in self-assessment patterns.

7. **Work**

(a) Why do people work? An examination of the natural human drive impelled by need of necessities ; inventiveness arising from natural curiosity ; possible stresses.

(b) Attitudes to work of people in school, home, the outside world.

(c) Division of Labour.

(d) General classification of occupations.

8. **Community**

(a) Interdependence on others in the school situation, the home, the world of work.

(b) The place in school society of school activities, form captains, prefects, teachers.

(c) By helping each other we can help ourselves/community work in and out of school.

9. **Social**

(a) Mixing with other people.

(b) How attitudes can affect job choice and opportunity.

(c) Acceptance rules of society.

(d) Developing an aim and a purpose in life.

10. **Job Choice**

(a) Simple classification of jobs.

(b) Examples of some popular jobs.

(c) Qualities and training required for particular jobs.

(d) Further and higher education.

(e) How choice of school subjects can affect job choice.

CAREERS IN THE CURRICULUM
FOURTH YEAR

General

1. The Fourth Year Syllabus is geared to the development of the personality of the pupil, through a study of home, community and working life.

2. The framework should be adapted to the methods most suited to the group. In some topics the best method to be used may be that of direct teaching of the subject matter, other topics may be better dealt with by informal discussion, project work, questionnaire, role/playing, or by the use of films and film strips as available.

Programme

3. A guide to the topics to be dealt with is outlined below.

4. **Home**

Growing-up—the teenager in the home—areas of teenager/parent conflict—how such conflict arises—how it might be resolved. Co-operation and discipline in the home — areas of responsibility — teenager's urge for independence — meaning of independence — responsibilities of independence — security and insecurity — parental aspirations.

Jobs within the family — reasons for chosen occupation — entry standards — working conditions — job satisfaction — promotion prospects.

5. **Local Community**

Types of community — attitudes within different communities — living with neighbours — written and unwritten laws of the community — interdependence — pattern of life of members of the community.

Job patterns within the community — successes and failures.

6. **School**

The social pattern within the school — how it develops — reasons for its pattern of development — how the individual pupil fits into the structure — peer influences — comparison of school rules and discipline with home / community/ work discipline — safety measures within the school. Development of pupil co-operation and self—discipline. Pupil jobs within the school.

7. **Law and Order**

Simple explanation of some of the laws we observe and reasons, e.g. Habeas Corpus, "Englishman's home is his castle", "Annoyance of neighbours," "Peeping Tom," Traffic Acts. How written laws have developed from common/sense and an acceptance of the other person's right to live his own life. Unwritten laws observed by the socially acceptable. Observance of laws and regulations in a work

situation — factory and shop regulations — protective clothing regulations — safety laws — accident's reports. A study of jobs of some of those connected with law and order — e.g. Policemen, Traffic Police, Traffic Wardens, Security Guards, Solicitors, ancillary staff.

8. **Social and Health**

Dangers inherent in smoking and drug-taking — speed of bodily changes in adolescence — care of the growing body, necessity of adequate sleep, fresh air and exercise — eating a balanced diet. Boy/girl relationships — maintenance in the right perspective. Simple rules of etiquette — meeting people, relationships with adults, visiting. Self-interest in maintaining good relationships with teachers. Simple correspondence, letters to friends, newspapers, semi business.

9. **Spending and Saving**

Provision of pocket-money — use of pocket-money — supplementing pocket-money — effects of excessively late baby-sitting on school work — suitable Saturday and part-time jobs. The influences and dangers of advertising. Budgeting for ones' needs. Hire Purchase and its dangers. Methods of saving — Post Office, etc., — advantages of saving and possible future uses.

10. **The World of Work**

Questionnaire on hobbies, interests and school subjects. Study of findings and possible uses.

How hobbies, interests and school subjects can be related to career choice.

The ladder of educational opportunity.

Reasons for working.

Satisfaction from work with particular emphasis on the importance of job-satisfaction.

Attitudes to work.

Relations in work situation with fellow workers and management. Concepts of industry, trust, reliability, punctuality and loyalty. Economics of work, wages, budgeting (link-up with pocket-money). Work rewards — difference between gross and net pay, i.e. before and after deductions types of deductions.

Establishing priorities in the choice of a career from :

Pension Scheme	Security	Variety
Prospects	Safety	Welfare Services
Apprenticeship	Short Hours	Pleasant Surroundings
Good Salary	Near Home	Away from home

A study of possible job outlets.

Establishing the different types of employment, e.g. differences between wage earners and salaried staff.

Study of people with a vocation as opposed to a job.

A study of a few careers selected by the group.

CAREERS IN THE CURRICULUM
FIFTH YEAR

General

1. The Fifth Year is the second stage in a pupil's school life when a decision has to be made. It is a difficult year and weaker pupils may have a tendency to slide back and opt for second-best.

2. Fourth Year Careers work needs to be extended and reinforced by more detailed study of educational and vocational opportunities.

3. It is likely to be the first year in which a pupil receives guidance from an outside source, i.e. the Careers Adviser.

Aims

4. (a) To extend the pupil's self-awareness ; to strengthen self-reliability.

(b) To extend the pupil's knowledge of career opportunities.

(c) To examine the educational ladder in greater details.

(d) To help the pupil reach a level of competence in decision-making that will enable him/her to "get the most suitable job and keep it".

(e) To extend the range of the pupil's personal guidance by the Guidance Team.

Programme

5. The type of topics to be dealt with are outlined below :

6. **Personal aims and assessments**

By discussion, use of questionnaires and pupil analysis of their intentions, to lead to consideration as to whether any reappraisal may be necessary.

7. **Study of alternatives**

An examination of the alternatives at the end of the Fifth Year and how they might be achieved — Sixth Form followed by FE Technical College, sponsorship schemes, apprenticeship schemes, service entry, U.K. employment opportunities, local employment opportunities.

8. **Study of level of career entry in relation to educational choice**

Requirements, of pupil selected occupations, for entry at levels approximating to Operator, Craftsman, Technician and Technologist. Broad responsibility levels, status and job-satisfaction within each group.

Method of "on-the-job" progression.

9. **Choosing and finding a job**

Job patterns — study of selected occupations — pupil's selected project studies agreed — guidance given on methods of seeking information — work with individuals on assessment of information obtained.

10. **Training and Further Education**

Methods of training, full-time, sandwhich courses, apprenticeship schemes, work-bench and part-time study. Study of training methods in detail in a few occupations preferably selected by the group. Detailed study of sponsorship and apprenticeship schemes.

11. **Going to Work (NOT "Leaving School")**

Environment — setting-in human relations.

Welfare and amenities — canteens, LVs, clubs and facilities, protective clothing, accidents and medical services. Punctuality (clocking-in), regular attendance, sickness regulations, factory regulations.

Wages and salaries — types of payment — overtime, bonuses, commission, profit-sharing schemes

Benefits, pensions and superannuation (contributory and non-contributory).

Labour mobility.

Redundancy and retraining.

CAREERS IN THE CURRICULUM
SIXTH FORM

General

1. The sixth form divides into four broad categories :

   (a) 1st Year Leavers — the former CSE group who have remained in school a further, year, either to improve earlier grades or follow limited range Sixth Form courses. They are likely to leave with few or no 'O' level.

   (b) **1st Year Leavers** — with four or more 'O' levels.

   (c) **2nd Year Leavers** — with sufficient qualifications to :
      (i) enter industry/commerce at technician level,
      (ii) enter a Polytechnic on a HND course,
      (iii) enter a Teacher Training College.

   (d) **2nd Year Leavers** — with sufficient qualifications to :
      (i) enter a Polytechnic and follow a degree course,
      (ii) enter a University.

2. The pattern of vocational guidance to be followed in the Sixth Form is likely to consist of a considerable degree of group discussion on items of general interest, supplemented by detailed follow-up work with individuals by Group Tutors, DSFS and Careers Staff.

Aims

3. The basic aims of the programme are :

   (a) To encourage increasing maturity, self-confidence and sound personal relationships.

   (b) To extend the student's self-understanding ; to teach the student how to reach realistic a judgement based upon a study of factual situations ; to extend the students' acceptance of responsibility.

   (c) To help new students to adjust to the Sixth Form and to show them how to work purposefully and profitably.

   (d) To provide more detailed information on the greatly extended job/career opportunities and alternatives that are available on the successful completion of a Sixth Form course.

   (e) To study in detail careers of particular interest to the group.

   (f) To promote a lively interest and study of topics of general interest.

Programme

4. **Induction Course**

   (a) Life in the Sixth Form.

   (b) Outline of courses available and objectives

   — A levels

   — O levels

   — continuation courses for new Sixth Formers, CSE and RSA.

   (c) Outline of vocational guidance programme and the team.

   (d) Points of contact and aid to students seeking vocational guidance and personal counselling.

   (e) Seeking and using Careers information.

   (f) Selection of possible introductory projects.

5. **Direct Careers Work**

   (a) Group study of course patterns, educational requirements and methods of entry.

   (b) Alternative channels of course patterns, educational requirements and methods of entry.

   (c) Student life ; living on a grant ; accommodation ; dircipline in a Further and Higher Education Centre.

   (d) Correspondence ; job applications ; letters of application for entry and interview ; seeking referees and use of testimonials.

   (e) Training in completion of forms, job applications, apprenticeship schemes sponsorship schemes, Technical Colleges, Teacher Training Colleges, Polytechnics, UCCA.

   (f) Dummy runs on applications for jobs and mock interviews.

   (g) Income Tax, National Insurance, wages and salary slips.

   (h) Trade Unions — functions and membership.

   (i) Work and work conditions.

   (j) Study of Statutory Acts relating to the working environment.

   (k) Discussion on the meanings of success and alternative paths to success.

   (l) Personal discussion.

6. **Indirect Vocational Guidance Work**

   A wide variety of topics of which some might be :

   (a) Our industrial society — social and economic development.

   (b) Educational system.

   (c) The organisation of industry.

   (d) The world economic situation — the have and have nots.

(e) Finance, international finance and our EEC commitments.

(f) The worker in the EEC.

(g) Citizenship ; National and Local Government ; the Judiciary.

(h) Social Services — Statutory and voluntary.

(i) Social problems, divorce, smoking, drinking, drugs, crime and violence pollution.

(j) Family life. Personal relationships.

(k) Values — a purpose in life.

Methods

7. To maintain the tempo of as lively and stimulating a programme as possible it is essential that the widest variety of approach be used. Some of these approaches are :

Personal contact

Discussion and group work

Organised lectures by visiting speakers

Films and film strips

Mock interviews and simulated situations

Outside visits

Directed project work by students on three or four selected careers, documentation.

GOALS OF EDUCATION

Cultural

1. To promote understanding and appreciation of the fundamentals of Islam and the basic ideology of Pakistan, and their reflection in the code of personal and social life.

2. To transmit the human heritage of categorised and preserved knowledge, as well as an understanding of the different methods by which the frontiers of knowledge are advance.

3. To promote understanding and appreciation of the roles of education, research and human labour in the socio-economic development of nations, as well as the high value placed on each in the ideology of Pakistan.

4. To engender a strong commitment to the ideals of life long education and the search for knowledge from all available sources, and to provide appropriate skills and understandings towards that end.

Social

5. To build up national cohesion by fostering social and cultural harmony through a better understanding of the rich heritage of Islam, of our struggle for the creation of Pakistan, and a review of achievements and lapses since independence.

6. To inculcate patriotism and commitment to the achievement of national goals ; to equip children and youth with the attitudes, understandings and skills required to enable them to comprehend fully the nature of technical and social change and participate effectively in scientific, technological and social development.

7. To build positive attitude towards, and develop the skills required for, the effective implementation of national policies and new and revolutionary programmes for promoting social justice and democratic institutions ; to develop understanding, of the subtle techniques of propaganda, and of the scientific approach to problem solving for the elimination of inequality, exploitation, ignorance, hypocrisy, and disease within the framework of our basic ideology.

8. To ensure the training of manpower in both basic and high level skills, and the development of proper attitudes towards the conservation and accelerated development of national resources, so as to enable individuals to play their part in the various branches of national life in a manner which will do honour to Pakistan.

9. To inculcate a sense of the dignity of labour and to prepare and motivate children and youth for productive service for the welfare of the community, and the nation.

INDIVIDUAL

10. To nurture the total personality of the individual—the spiritual, intellectual, physical, emotional, aesthetic and moral aspects—with special emphasis on the

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inculcation of a spirit of critical and creative thinking, self-reliance, co-operation, personal dignity, integrity, responsibility and dynamism, and to provide opportunities for the pursuit of excellence by the talented and gifted.

11. To prepare the youth of Pakistan for gainful employment in accordance with their aptitudes and interests to provide opportunities for furthering knowledge and acquiring new skills in agro-technical fields in accordance with social needs.

International

12. To promote international understanding and good will.

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OCCUPATIONAL INFORMATION

(Jobs, Firms and Organisations, Industries, Fields of Work)

A. MARKET DATA

1. Entry Requirements (acceptability index)
   - (a) **Age**
   - (b) **Sex**
   - (c) **Qualifications**
2. Risk Features (survival index)
3. Opportunity (ratio of applicants to jobs)
   - (a) Local
   - (b) National

B. WORK FEATURES

	Short-Term	Long-Term
1 Training-Skill Aspects (work tasks)		
2. Physical Aspects (health)		
3 Financial-Materialistic Aspects (time)		
4. Social Aspects (work-mates, etc.)		
5. Reported Satisfactions		
6. Reported Irritations		
7. Value Orientations Implied		
8. Extra-Work Influences		
9. Special Significance for Women		
10 Health Hazards (physical, mental and social)		

C. CAREER DEVELOPMENT PROSPECTS

1. Predicted Contraction, Expansion or other changes of the job-industry etc.
2. Career Progression Prospects within the job — industry-firm, etc.
3. Possible lateral career shifts to different jobs, field, etc.

WORK FEATURES

1. Work task and skill related information.
2. Physical conditions of work, strains, health risks, danger, etc.
3. Pay, Security, promise of rising pay, hours of work, perks, holidays, bonus schemes and overtime, shifts, superannuation and general conditions of work.
4. The social ambinance within which work is done, the expectations of work mates, bosses, customers, clients, patients, etc. and customary patterns of social interaction.
5. Commonly reported satisfactions, including status satisfaction with the job label.
6. Commonly reported irritations ; reasons for voluntary leaving.
7. What things, objectives, purposes is one influenced to value by the working ethos.
8. The influence of the work, the working life and the occupational label on the total way of life of the worker ; his friendships, how he spends his leisure time, where he lives, how far his freedom is constrained. The quality of his family life, his image of himself, his attitudes, his values and his life goals. Even its influence on his conception of what constitutes an adequate and desirable style of living.
9. What special features are of particular interest to women whether single or married.
10. What maladjustments, deteriorations, diseases and breakdowns are endemic in this working population—cancers, bronchitis, ulcers, alcoholism, divorce, etc. Life Expectancies.

ANNEXURE 8

THE TECHNIQUES SUITED FOR CONDUCTING SURVEYS FOR ORGANISING VOCATIONAL GUIDANCE PROGRAMMES IN PAKISTAN

by

Dr. (Miss) Iftikhar N. Hassan*

The survey of studies are generally directed towards finding out exact status of a problem or situation. They are usually descriptive in nature and provide the planners with basic facts and figures according to which one determines the next step or plan of action.

In other words survey studies aim at finding more about the problem may it be teaching methods, school administration, parents attitude towards school, local job market or placement opportunity for high school graduates. This type of information is of immense importance as without accurate assessment of the problem, the effective remedies are not possible. "Survey research" as a term known to the social scientists is much more comprehensive and technical as compared to layman who knows about school and communities surveys as a method to get some information for local use only. However both types of information the highly technical information sought by the social scientist and some simple, basic information needed for a pragmatic solution by the local school or business community are equally important as both of them serve as aid in finding solution to their respective problems. A well planned survey not only gives basic information but also gives comparative data and trends, etc. for future prediction.

Type of Information sought in Surveys

The information sought in surveys generally falls into the following categories.

(1) The setting

(2) The characteristics of personnel

(3) The nature of phenomena to be studied

(4) The nature of the process.

The Setting

Some surveys are concerned with the legal, administrative, social or physical settings of a problem or phenomena. This is essential to understand the problem and even more necessary to determine the suitability of a remedy because it is very possible that a solution may not be effective because of the adverse conditions which may exist in a certain situation. For example, Fish intake to fill protein gap is not relevant in a country where people have different food habits or have religious taboos against fish intake.

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The Characteristics of Personnel

Job analysis surveys are a very common feature in school guidance programmes, industry and manpower planning agencies. They are carried out to find more about the educational and train ng requirements of various jobs or to determine the quality of personnel in a certain organisation. A personnel survey of science teachers of high schools in a city, for instance can tell about the number of teachers, their qualifications and student teachers ratio in science subjects which can help the planner to understand the strength and weaknesses of science teaching in that city and plan for future in more meaningful context.

The Nature of Phenomena

There is a saying that correct diagnosis is half the cure. The same applies to the social ills. Unless we know the exact dimensions and various manifestations of a problem we cannot understand its full implications. It is a very common problem in social sciences that apparently simple phenomena is not really so simple and like an iceberg most of it is under water. We can take the problem of 'school drop-outs' or 'unrest amongst youth' or 'changing social values' in the developing countries. Most of these problems appear to be similar to the problems of developed nations but the causes are very different. The unrest amongst the youth of developed nations is an offshoot of affluence whereas in the developing countries it is caused by scarcity of means and opportunities. Each problem of phenomena therefore needs to be thoroughly investigated and correctly labelled for the sake of further study.

The Nature of the Process

The programmes, processes and outcomes may come under scrutiny. The research may investigate, what is and what is not included in a curriculum. The number of activities scheduled for each subject, the time allocation for various subjects, the text-books and related material, etc. can all form part of the investigation which may lead to assessment of the educational process itself.

Useful as these studies are for better understanding and better handling of problem situations in education and other related fields. They call for a careful planning and execution of the study. Following is a brief step by step account of general plan of a descriptive research or survey studies.

(1) Carefully examine the problematic situation and determine the limits of the investigation.

(2) Define the problem and state the hypothesis.

(3) List the assumptions on which the hypotheses are based and the methodology is determined.

(4) Carefully select the sources of information and relevant facts to be studied.

(5) Decide the techniques of collecting data which will be most suitable for that population.

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(6) Pre-plan the data analysis techniques and decide how it is going to be categorised.

(7) Pre-test the data gathering technique on a small sample and objectively judge its suitability.

(8) Determine how the data is going to be interpreted in clear, unambiguous terms.

Surveys may be descriptive and specify the properties of educational phenomena, or they may be explanatory and specify inter-relationships among variables. The school surveys and job analysis surveys come under descriptive surveys and are most useful for guidance programmes. One generally does not need very elaborate training or specialised staff for it. Usually the teachers and the students can get-together and plan and carry out a survey. Sometimes they write to an expert to help in planning and later on in analysis of data from outside the school. There is yet another method usually followed in educational surveys in which local laymen and school staff join hands to conduct a study or an outside agency or expert joins the school staff to conduct a survey, thus co-operatively combining forces to gather some useful information.

The survey can be conducted through questionnaire or face to face interviews. It can cover every single member of a particular population or just a selected sample. Sometimes it gives us only the description of the situation and at another time, depending upon the skill of the survey executing agency, gives a lot of information about the existing situation as well as direction for the possible line of action for future.

In developing countries like Pakistan with low rate of literacy and people not in the habit of answering questions put to them by strangers, it is generally more practicable to use interview rather than questionnaire technique. Although in the case of oral interviews a brief questionnaire should be prepared and the researcher trained in asking questions and later recording it after the interview is over.

The Framework of Vocational Guidance

The main objective of vocational guidance is to enable every student to understand himself better, to understand the environmental opportunities available to him and after knowing both select a particular profession which gives him his desired life style and a profession which is satisfying to him personally as well as to the community and the nation to which he belongs. As such the process of guidance consists of the following factors :

(1) Providing the individual about himself, his abilities, interests, needs, ambitions and limitations at appropriate stages.

(2) Providing him with relevant information about the environmental opportunities at appropriate times. The total range of opportunities available to him in theory and practice in the light of his academic achievements and the educational planning necessary for entry into these vocations.

(3) To provide him with a frame of reference in which to see and assess himself in the context of educational and occupational opportunities and to alert him to future decision-making points.

(4) To provide group counselling and individual counselling in order to promote self-understanding and to develop educational and occupational goals.

Vocational guidance is essentially a developmental process concerned with anticipating crises and future decision-making situations. It is client centered, that is the prime responsibility of the counsellor is to his client and not the school administration or community although the counsellor tries his best to minimize the conflict, if any.

In order to provide effective guidance to the students we not only need very well trained staff but they also have to be helped by a continuous flow of latest information on job trends, employment requirements and industrial innovations. Their training must include techniques for classifying the information to enable retrieval from the vast resources of information that which is pertinent to either general or particular situations. They must also be well versed in collecting this information locally if the need so arises.

Surveys conducted by international, national and local outside agencies provide rich resources for the counsellor. The growth of interest in manpower planning in many countries has accentuated the demand for surveys of people in relation to their jobs. However, the surveys conducted by schools are much limited in scope and help only in educational and occupational planning of those students who cannot move out of the community and this number is going to be large.

Vocational guidance has been a subject of great interest in Pakistan. All the policy documents have been suggesting some guidance services although not much has been actually achieved in the field. A general survey of existing guidance services was undertaken in 1971 by the Researcher on the request of the then Pakistan Government for Manpower and Planning division. The main information sought in the survey was (a) financial allocation if any (b) personnel deputed for guidance work and (c) activities carried out by any agency in this respect.

The survey revealed the existing position of various programmes of guidance till 1971 and this paper is being attached as appendix with the present report. However, the situation has improved a great deal since that time and the present Government of Pakistan is spending a lot more money on the education sector. In fact the education budget is next only to defence. In the light of these facts the survey can serve only the historical document and of course a guide for future planning.

DEVELOPMENTS IN VOCATIONAL GUIDANCE TRAINING AND INSTRUCTION†

by

Mr. T. J. TAKATS*

Synopsis

The role of the United Nations' Agencies is indicated in bringing about a harmonised policy recommendation for the effective vocational guidance and training. Some examples of developments in vocational guidance are given with reference to assessment of abilities.

The importance of orientation on the occupational hierarchy is underlined. Resources for recruitment of candidates in technician training is considered in developed and developing countries.

A systematic method of training programme construction is discussed.

Brief references are made to new instructional methods.

Introduction

Executive Agencies of the United Nations have, since long, been concerned about the development of human resources to further their capabilities for productive work. In 1973 a joint Unesco/ILO Meeting at Geneva in Technical Education and Vocational Training of the two Agencies agreed to "Pursue harmonised objectives and avoid duplication and conflict" for "furthering human capabilities for work in relation to social and economic advancement and to dealing with . . . vocational guidance and training . . ."

The matter received serious attention and was included in the 59th Session (1974) of the International Labour Conference. A report was subsequently published by ILO (Ref.1).

The proposed conclusions seem so relevant that in part these are presented in Annex 'A'. Emphasis is given that "the Recommendations should apply to the vocational guidance and training, taking place mainly outside the system of formal education of both young persons and adults for all branches of economic activity and all levels of occupational skill and responsibility."

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†The views and opinions expressed are those of the author and do not necessarily reflect the views of the Secretariat of the Unesco. This paper has been reproduced without formal editing.

Developments in Vocational Guidance

In the course the development of recognized crafts and trades in many societies it had been the custom that the oldest boy follows his father's footsteps. He will continue the family tradition or business.

Over a hundred years ago I. Madach wrote a frightening, classical play, "The Tragedy of Mankind." In one of the futuristic last scenes a "Brain Trust" examines the young children's abilities and decides his or her future, purely on a "functional" base. For example, the young Michel-Angelo is destined in the play to produce square table legs.

Current Vocational Guidance lies somewhere in between. Traits, skill and intellectual abilities are assessed by suitable observations and tests. Desires and inclinations of candidates are considered. The employment opportunities are investigated. Remuneration and social implications are studied. The occupational orientation is given in view of the above.

Examples in Vocational Guidance

In the United Kingdom the Youth Employment Service under the Central Youth Employment Executive of the Department of Employment is responsible to provide a vocational guidance service. It operates via Career Officers visiting schools, working with Career Teachers discussing job and remuneration opportunities ; but it goes further, it advises on the school subjects necessary for entry into specific careers, helps in finding placement, has a "follow-up" mechanism and it extends it's services to handicapped children as well. The Service publishes a series of booklets, "Choice of Careers". There are some 120 titles (see Ref. 2 for samples). In the U.S. Department of Labour, Manpower Administration, the Bureau of Employment Security and the U.S. Employment Service collaborate in providing up-to date information on existing and new occupations. The Occupational Outlook Handbook, periodically published by the Bureau of Labour Statistics, U.S. Department of Labour, gives the job openings in various occupations and the necessary qualifications to obtain such jobs. In a recent "Technical Report" (Ref. 3) a comprehensive "Definition of Worker Traits" is given in connection with the occupations in the numerically controlled machining.

In Colombia, where the vocational training is conducted by a National Apprentice Service, (SENA) which is levying industrial payroll at 2% for training, a "Human Resources Department" classifies occupations, predicts job opportunities organises its training capacity accordingly, aiming at a "manpower economy balance". Further, it describes selection tests and recruitment criteria for various occupations.

Assessment of Abilities

In technical and vocational employment the following main factors, among others, will determine the effectiveness of employment and progress.

The intellectual ability ; there are several methods to assess the intellectual ability. In general, advancement in the early, formal years of education might be

an indication of I.Q. but not necessarily in all cases. There are late developers, social, ethnical and environmental influences must be considered. In homogeneous groups, tests will serve as a comparative measure but they are not equivalent to measures obtained in different group. Group intercomparison is more difficult. Co-relation co-efficients are to be established (Ref. 4).

Many researchers have contributed to the currently accepted theories on the assessment of the intellectual capacity and the mechanism of learning, processing information, storing data and the process of recall. Guildford had developed a theoretical "Model of Intellectual Ability," Vernon analysed the "Test Profiles" and Spearman proposed a "Two Factor" theory of intelligence of "general" and "specific" abilities.

The Communicational abilities include written, verbal, numercial, spacial, form perception and clerical abilities. In the occupations of today's advanced technologies these abilities are of great importance. Special attention is to be given in selection test to these. Modern technology depends on precise communication of data ; verbal (written or oral) graphic, numerical or conceptual forms all must be mastered.

The Physical abilities include manual dexterity, physical fitness, colour discrimination, (along with noise, smell and taste discrimination in certain industries) nervous disposition and the like. In certain countries compulsory and periodic medical tests are conducted, and indeed form part of vocational orientation.

The Co-ordinating Abilities to synchronise mental processes and physical movements to respond to a situation and to develop "motor responses" to a repeated stimulus.

The Personal abilities like interest, response to motivation, temperament and perseverance are to be assessed for the successful orientation to a given occupation.

Guidance on Occupational Hierarchy

In any vocational guidance system it is imperative to discuss frankly the relative levels of occupations, their remunerative and social implications.

It is convenient to divide the occupational hierarchy into 3 sections.

— The professional/scientists/top management

— The technicians and middle management

— The skilled workers and operators

This basic division holds for all sectors of but it is more marked in the industrial sector of manufacturing, construction and process industries. In the commercial or services sector the demarcation lines are not as clearly defined and job titles can be misleading. In the agricultural sector the middle section develops as agriculture is mechanised, modernised and put on scientific bases.

Within the various levels there are different grades.

OCCUPATIONAL PYRAMID

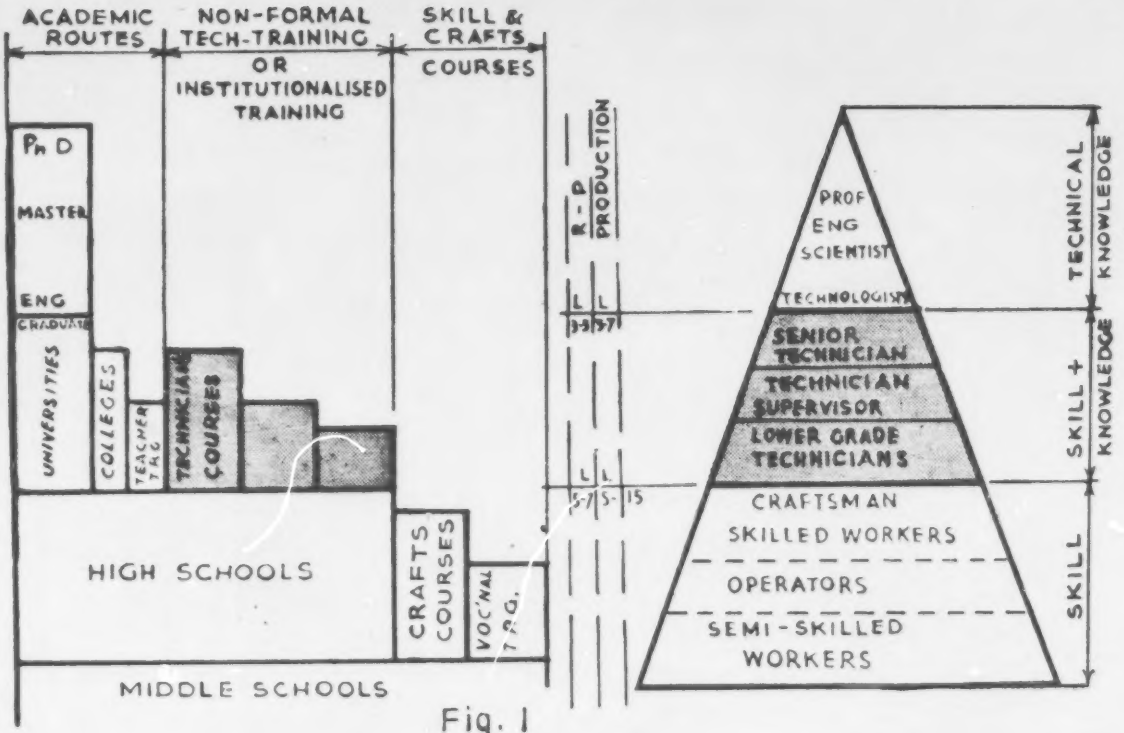


Fig. 1

The general, prevailing grades in the technical field are as shown, together with employment ratios and educational/training routes.

It is difficult to give exact ratios of employment as related to levels or grades, as the actual limits within grades are not catagorically defined ; however, considering only the "technician" level, this group should constitute around 12% of the active labour force within a given industry. Ratios for developed-industrialised countries are :

Engineer/Technician	1/3 - 1/5
Technician/Worker	1/7 - 1/15

depending on the type of activity. The quotients for mass-production are lower and for R & D work higher.

A survey conducted in U.K. in 1969 found that 58% of all employees in the engineering industry were concentrated in mechanical and electrical engineering (31% and 27% respectively). About 2/3 of all technicians employed are to be found in these two fields. Ratios are varied from 14% in the aircraft industry through 10% and 8% in the electrical and electronic industry, respectively. to as low as 5% in mass production, such as the consumer goods industries. The size of the establishment also seems to be a deciding factor for the percentage of technicians (and trainee technicians as well). The larger the establishment is, the larger the percentage of people employed or trained at technicians levels. (Ref. 5).

Here it must be stated that, as a rule, the larger establishments (1,000 or more employees) seem to carry nearly all the training load, as they do have the corresponding facilities. The Industrial Training Act and corresponding levy takes full account of that. In establishments between total employees of 100 to 1,000 the average percentage of technicians (including trainees) is 14%

In vocational guidance the occupational hierarchy may be presented differently in function of expected remuneration, job-opportunities and length of training. This form of presentation is shown in fig. 2 Ignoring "Peter's Principle," one can work oneself "up the Organisation" by increased amounts of training, cultivating further one's abilities, thus increasing one's income but reducing one's job-opportunities by increased competition.

Consideration of Manpower Resources

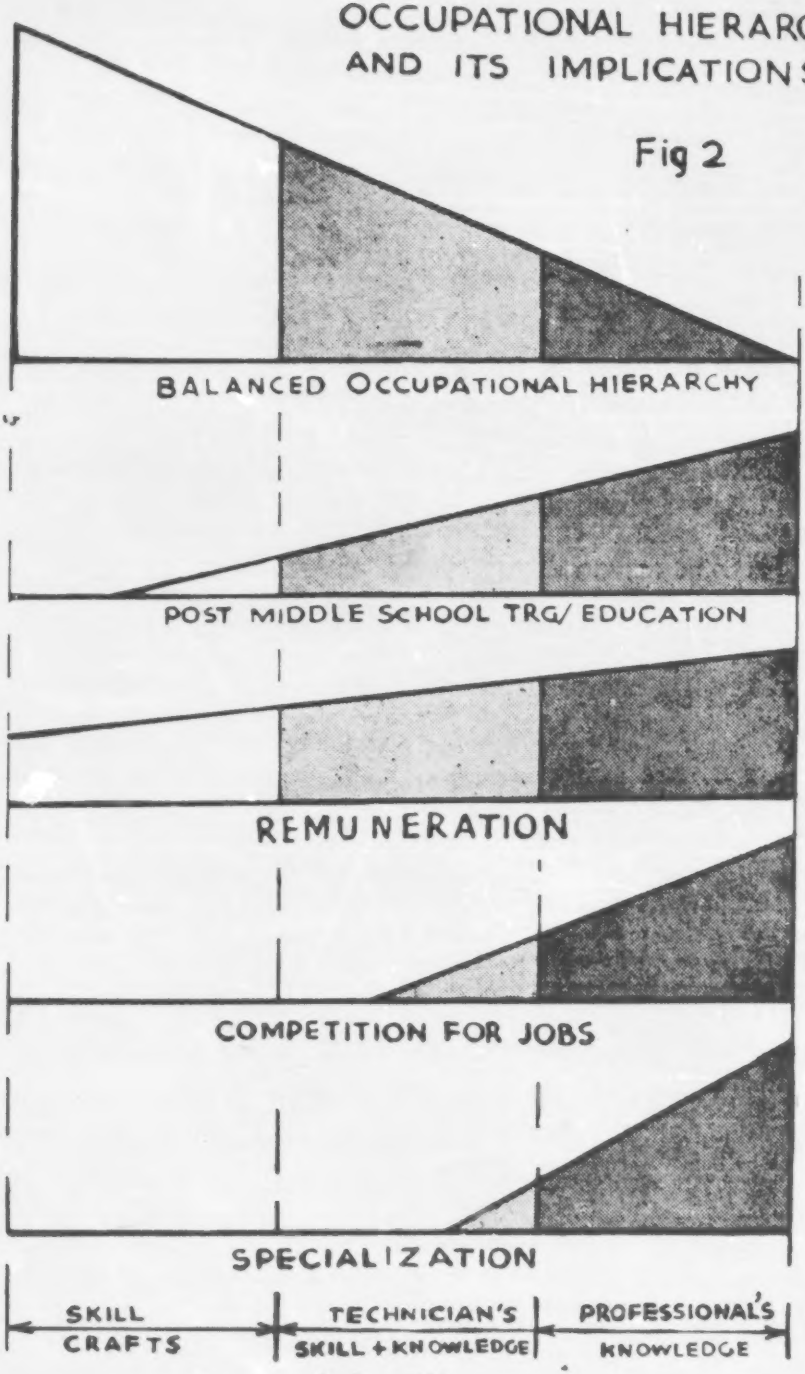
The vocational guidance system of any country is incomplete without due consideration of manpower resources. Input-output analysis of manpower planning will provide the resources framework for vocational guidance, (Ref 6).

A comparison of manpower resources for technicians in developed and developing countries is given below, as a case study of availability of candidates.

In developed countries, despite the available formal opportunities for technical training, the largest resources are the promotion from the craft categories, (Ref. 5). This principal vocational and technical training routes are shown in fig. 3 for England France and Germany. As clearly indicated, entry to the technical training of the

OCCUPATIONAL HIERARCHY AND ITS IMPLICATIONS

Fig 2



tertiary level is based solidly on the vocational training for skills and craft categories. Nearly all entrants to technician training had been exposed to substantial practical vocational training before entry, thus possess a basic appreciation of manual skills, at the least. Many have completed a full apprenticeship and are already employable. The training programmes are, in general, divided into an institutionalized, formal training (off-the-job) and an in-plant, (on-the-job) objective training, supervised by the Industry. The Industrial Training Board co-ordinates the in-plant training which must conform to some legislated minimum standards. Criteria is established for the practical, objective training while the Engineering Institutions and National Examining Bodies concern themselves with corresponding Certificates and Diplomas after written examinations.

In the continent of Europe there is a tendency of national licencing system, which will allow the licencee to start his own business.

In England there is no formal, national licencing of craftsman and technicians, the vocational and further technical education is assessed in terms of qualifications and certificates issued by the various Institutions or the Ministry of Education.

In sharp contrast to the developed countries, developing nations do not possess the large number of craft and skill-trained manpower which they need for the accelerated industrial development programmes. In many cases, the technologies are imported, or are being transferred, thus there is a presence of large number of expatriate technicians, technologists and engineers.

It is therefore essential to identify the training needs, make national, economical manpower plans and create the vocational and technical training systems specially suited for the available candidate population.

In general, the vocational training schemes will cater for the skill training of qualified (classified) workers, but as a rule do not provide an opportunity for "further education". The possible openings for further advance for the ambitious men are the "supervisory" or "foremen" courses, which are usually management oriented, without technological content. A small proportion of these people might undertake training as "Craft Instructors" to perpetuate the vocational training system. The craft category, thus, will not be a real "feeder" for the technician training. Other resources must be sought.

Traditionally in developing countries the classical way to "arrive" in the society is to go to a University. All University places are many times over-subscribed by candidates. These candidates, have completed a classical (or applied science oriented) secondary education which only qualifies them to be a candidate to a University; they possess no skills or technical knowledge for direct employment. In developing countries this group of people — well educated, but non-employable — who may form the target population for tertiary technical training.

A study of the technician training programmes in countries, of various levels of development indicate that this is precisely the case. Fig. 4 shows the principal training routes in Kuwait, Colombia and Korea. Kuwait, being a special case, but

TRAINING ROUTES FOR TECHNICIANS

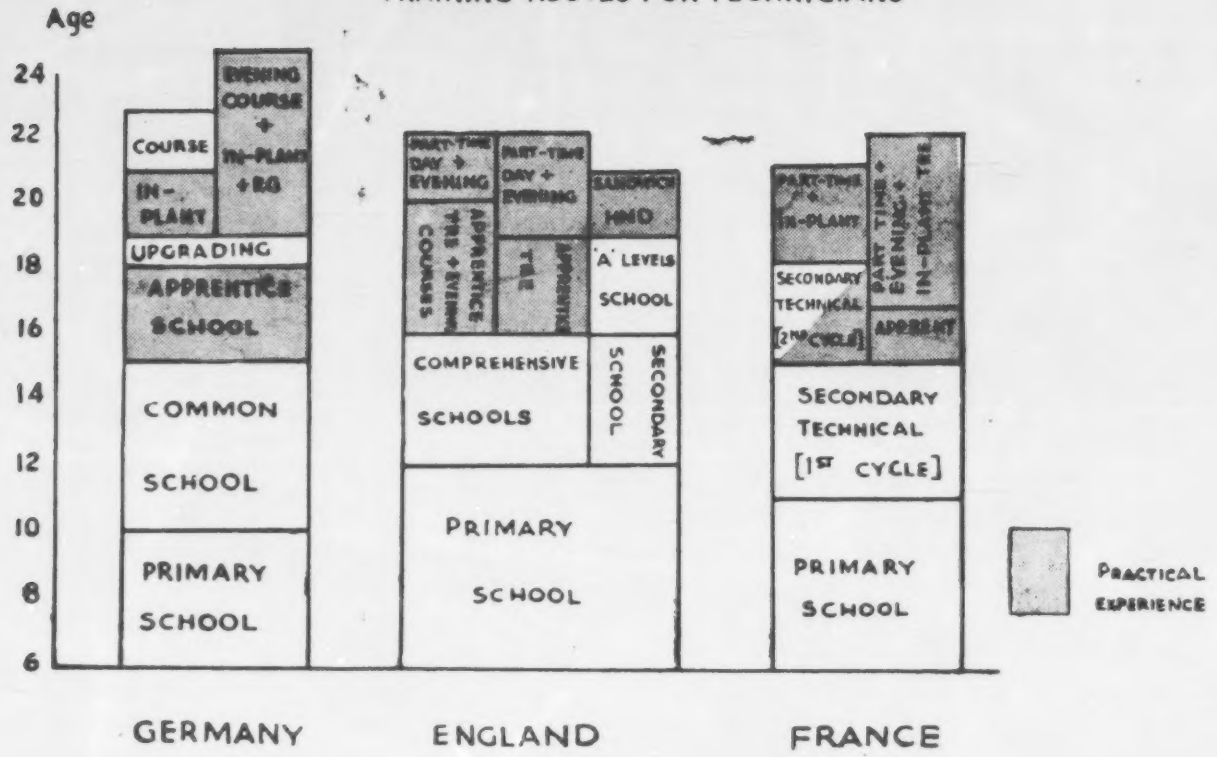


fig 3 163

Colombia and Korea indicate, that the main resources are from the high-school graduates. Recently in Korea a National legislation opened up opportunities to craft categories to progress to technician's grades, but in the short experience of two years, they only reached the lower grades, while the higher grades are obtained only by trainees undergoing specific, post-high school, two years courses.

Considering, therefore, that in the developing countries the basic manpower resources for technician and higher technical training is available from the high school graduates, the training system must be oriented to this layer of intake.

In countries like Japan, where technical training was formalised early in this century, an interesting intermediate solution seem to exist and fulfil the requirements quite satisfactorily. In the high school a certain element of skill training is introduced and the classical applied science curriculum is strongly oriented toward technologies. The " Technical High School " graduates are more readily adaptable to industrial environment — yet they are neither skilled craftsman, nor technicians. To further their skill, they have to have on-the-job training. To further their technological knowledge, they have to attend Institution and undergo formalised training. This training must have a very substantial element of practical work.

After the second World War many countries, previously relying on their agricultural product for national income, started to industrialise. The same system as in Japan was used in different forms but the largest intakes of trainees for technician training came from the high schools and technical high schools.

One more distinction can be made between developing and industrialised countries : In developed countries the mechanism for in-plant training exists within the industry. In developing countries, the primary objectives are industrialisation. They are too busy sorting out the teasing problems of the industry; they have neither the time nor the manpower to establish and create an ongoing in-plant training system to cater for the long-term trained manpower needs. Immediate needs are solved by imported technology and technicians/engineers. Short-term training needs are solved by transferred know-how on a person-to-person basis (counterparts) or by fellowships. In either case, the qualified person who could act as a multiplying factor (trainer) does not exist, or even if he exists, his main job is not the long-term training of his successors. In certain countries the transfer of know-how from the initial person to others is being obstructed by his attitude; transferring and sharing his technical know-how could undermine the security of tenure of his job : he will face competition from his disciples.

In consideration of the above factors, in developing countries the higher technical training will have to be more institutionalised. As it is formalised (off-the-job) entirely or in large proportion, a very strong emphasis must be put on the practical work in a simulated industrial environment.

Systematised Construction of a Training Programme

In less developed and developing countries there is a gap between the output of skilled labour by Training Institutes and the industrial need. This gap has two

TRAINING ROUTES FOR TECHNICIANS

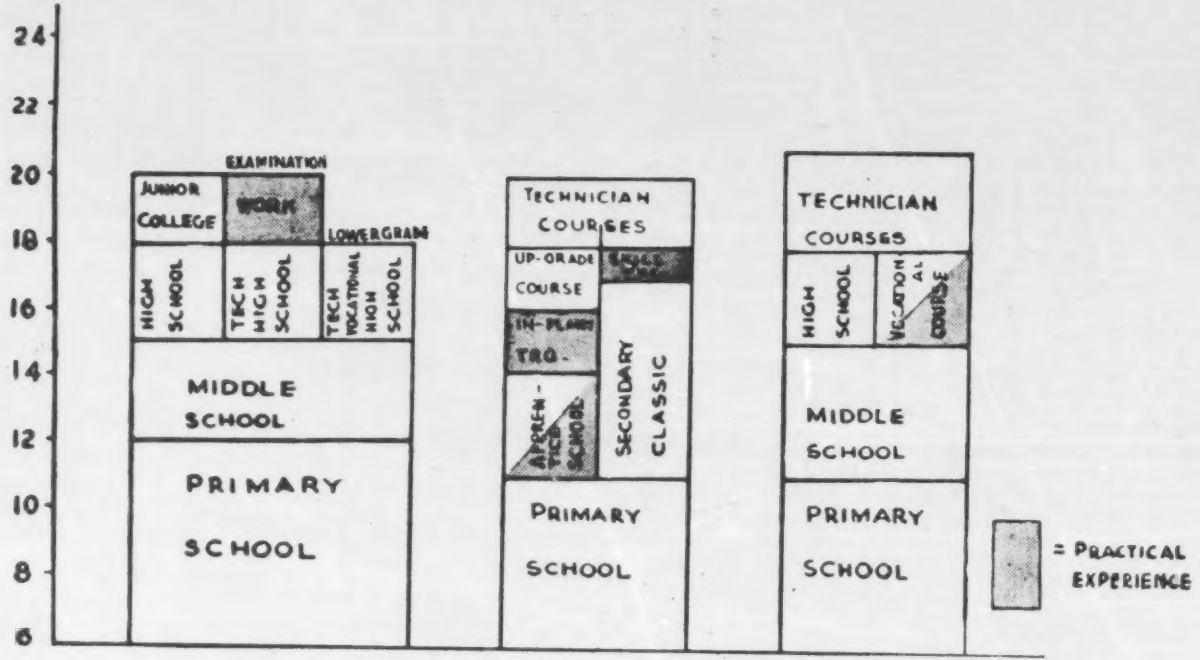


fig. 4

main aspects : insufficiency in quality and unsuitability in quality. Training is not closely geared to industrial needs ; it is based on long-term, antiquated plans. Industry changes due to rapid technological innovations and importation of new modern techniques.

In the developing world there is an urgent need to replace the expensive expatriate labour and technique know-how by indigeneous skills. Thus providing cheaper manpower for the industry ; employment and prosperity to the community.

While in developed countries there is a traditional line of industry ; in the developing countries new industries are mushrooming up, making need for a large degree of labour mobility and adaptability.

To cater for sufficient quantity, acceptable quality, mobility and adaptability of the trained manpower, a training system should be devised which is sufficiently flexible, dynamically responsive to rapid feed-backs of changed objectives and yet systematised and reasonably standardised to international equivalences to provide regional or interregional mobility.

Traditional training schemes of prolonged apprenticeship are too cumbersome. They were invested in the earlier stages of industrialisation to provide a competent, fully fledged craftsman. Often it was deliberately prolonged to provide cheap labour and or to safeguard the "guilds" and the associations of "master craftsmen". Current industrial automation, the development of controlled manufacturing processes call for a different kind of manpower. His skills are confined to a narrower field and require a higher appreciation of technical knowledge.

There is, therefore a very positive trend towards a co-ordinated and integrated training system, which is capable to meet the current needs. This approach is via training modules. A conceptual definition of a training module is given in Ref. 7 as : "The module is a self-contained collection of various skills and knowledge to correspond to an occupation of a single job-function". ILO is advocating and applying training units, which will make up "Modules of Employable Skills". The Industrial Training Board (ITB) of U.K. has developed somewhat different modules, based on content as well as the time required for training. The design of these modules were based on a homogeneous target population and aggregated advancement time. For technician training modular training approach was advocated by Unesco in their publication, "Study of the Status of Technical Training Institutions and Technicians". (Ref. 8).

An interesting, industry based, institution co-ordinated and controlled, modular training programme was programmed in great detail in Colombia, by SENA (Ref. 9). The City and Guilds of London Institute and several Polytechnics are organising training programmes on a form of a modular basis for the training of technicians and technologists.

There is one very important element that most of these modular approaches have in common : an accurate assessment of training needs by occupational analysis and a task-by-task breakdown of the required "terminal behaviour" or training objective.

In developing countries there is an urgent need to help the Industry to assess its own needs. To make realistic projections of their future needs. It will no longer suffice to state we need X engineers, Y technicians and Z mechanics.

What will these people actually do?

What are their job functions?

What is their expected terminal behaviour?

Having assessed clearly and precisely the job functions of the manpower requirement, a job description and job specification will follow. This represents the real need.

The next step is to look at the availability of manpower — resources. Here there is an important role of the national co-ordination ; often the most convenient group of candidates are those already trained for another purpose.

A general, national co-ordination of manpower resources is essential, taking due consideration of unemployment, rural in-migration to industrial centres and cities and the like.

Having identified the group of candidates or target population, their social, cultural, educational background is to be examined for deviation from the mean, i e. the degree of homogeneity must be assessed. Often, there is a need of pre-training, equalising courses. In Colombia, for example, for technicians training two-thirds of the candidates came from high schools, one third from the apprentice programme. The former lacked practical skill and the latter lacked technical education. Two separate courses within short period harmonised the two groups.

Having achieved a reasonably homogeneous intake of candidates, the training gap is established, i.e. the difference between the terminal and intake levels and behaviours.

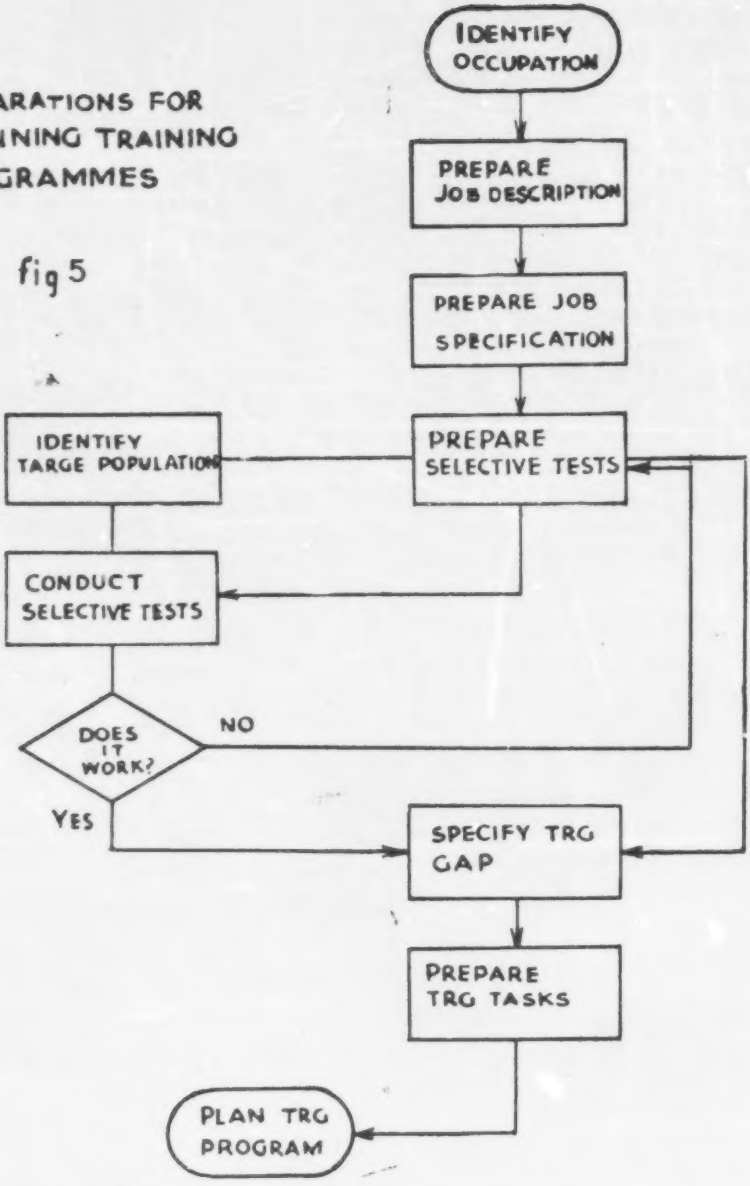
The training gap leads to training specification and the planning of the training programme, as indicated by the procedural model in fig. 5.

The assessment of the intake level can be individualised or applied to small, uniform groups and the training programme becomes "tailor made". Figure 6 indicates in graphical form the individualised assessment of training gap.

Having established the training specification, one can proceed to make the training programme. Training programmes destined to satisfy the obtained training specification can be tailor-made by the use of a systematised approach as shown in fig. 7. The basic difference from the traditional linear approach is that prior to writing the syllabi and setting up curriculum (or course structure) : the tasks of learning are analysed in terms of the "Characteristics" of the recipient or target population. These considerations include not only the size of groups, but also their cultural, ethnic, social and phsycological background. Considering these factors, the learning targets are specified. With these two factors the syllabi are written. From the collection of the syllabi the curriculum or course structure is established.

PREPARATIONS FOR PLANNING TRAINING PROGRAMMES

fig 5



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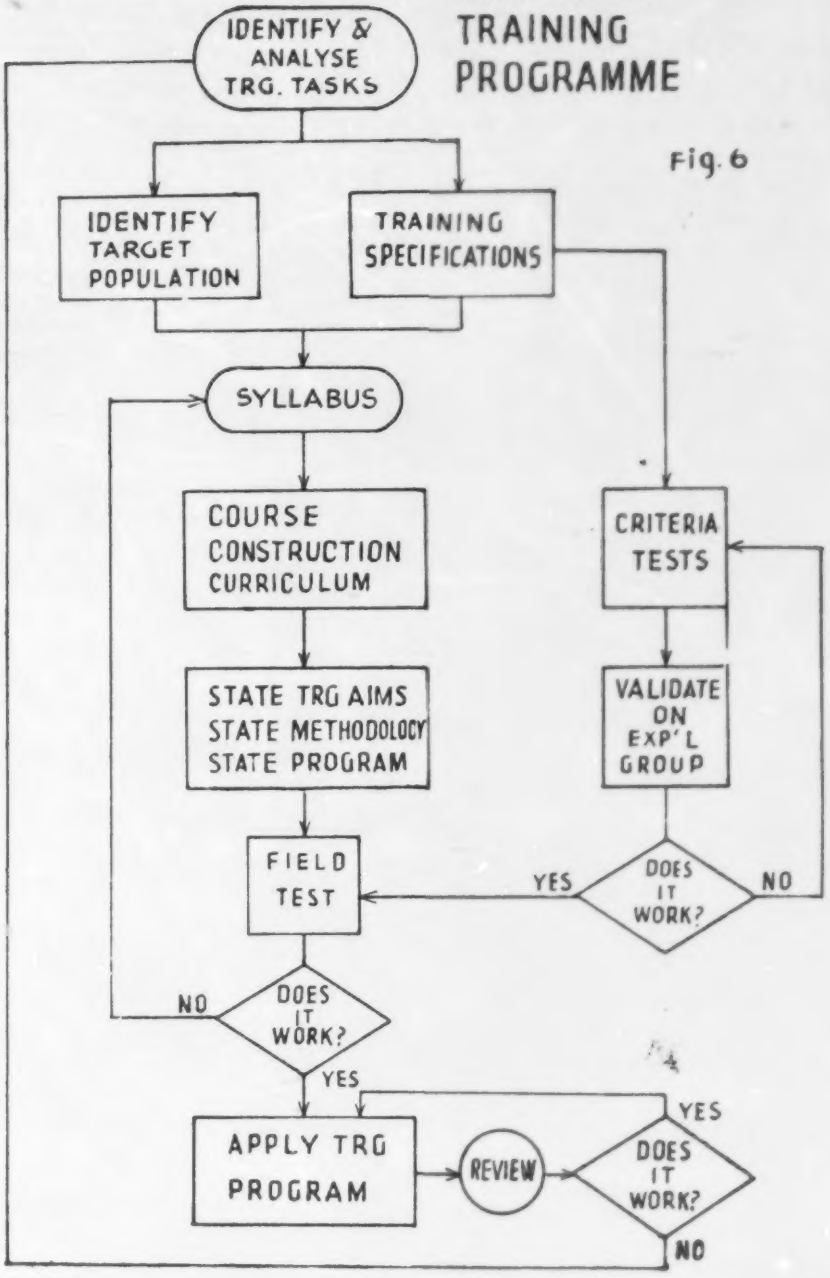
PREPARATIONS FOR MAKING A TRAINING PROGRAMME

Fig. 6



TRAINING GAP PROFILE

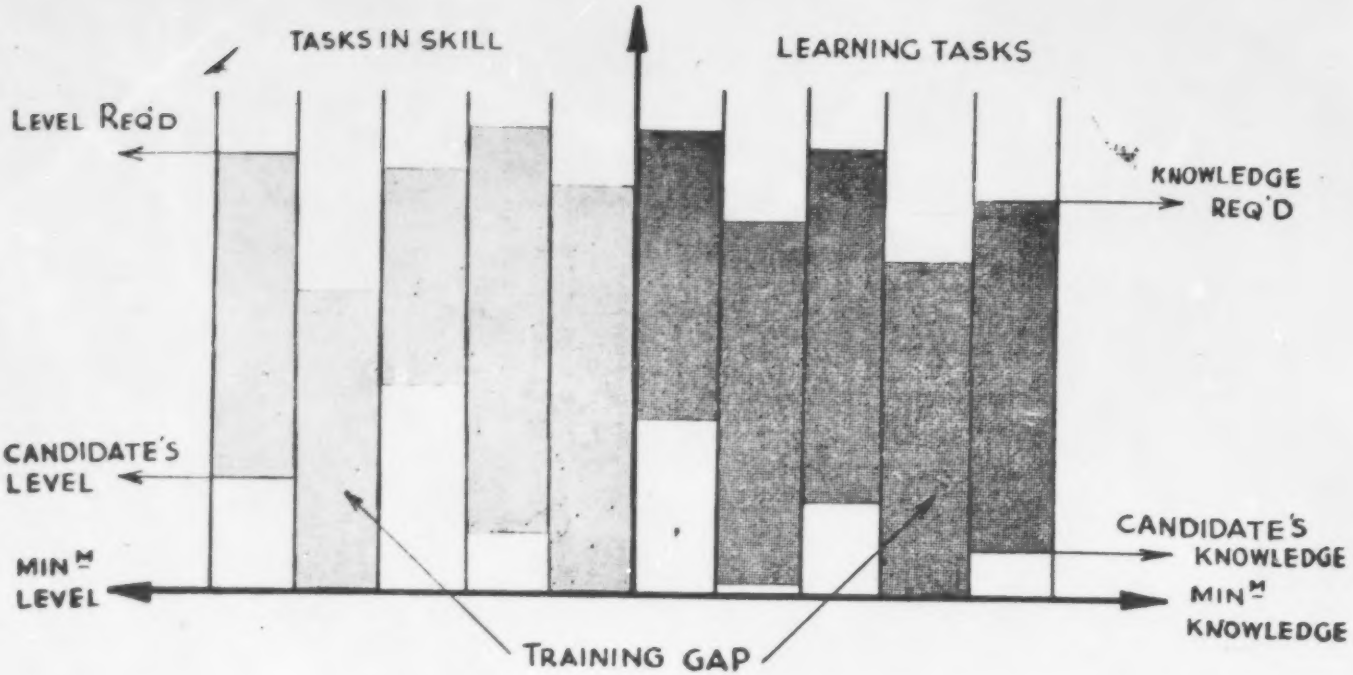


Fig 7

Once the course is all set, it has to be tested or validated. There are various tests, according to varied criteria. The first test is the institutional assessment (mostly by examination and practical tests, or continuous assessment) of reaching an acceptable level of attainment in mastering the set tasks. The second is the "field test". This is a more realistic criteria, the industrial acceptence, as they are the final users, or the "consumers," so to speak.

After this "experimental" or "pilot run" of the course — provided it was acceptable — the training programme is set into permanent use.

During use the Instructional Technology is improved. The provisional audio-visual aids are developed on a more permanent basis. The programme is reviewed periodically in terms of changing industrial requirements.

Instructional Methodology

"Active participation increases learning . . . no single medium or device fully serves all instructional purposes . . .correlated use of several different media is often required to accomplish effective learning" as stated by Brown, Lewis and Harcleroad. (Ref. 10).

While methods of communication and information transfer have, for centuries, relied mainly on the classical, written words, the use of pictorial or illustrated information transfer was practiced since the most primitive times. Hunting scenery in caves, diagrams by Euclid, Leonardo de Vinci's sketches, Gallileo's, Newton's and Commenius' illustrations on their explanations are the forerunners of the more varied use of this medium to transmit information. In the past half a century, with its rapid progress and innovations in telecommunication brought with it a quiet revolution in educational or instructional technology. Motion pictures, recorded sounds, models, projectors, simulators, video recordings, programmed learnings, teaching machines of today's teachers. All the sensory devices, the "channels" of communication are bombarded with massive data of information. It has been a long way from the blackboards to the computers, in a relatively short time.

Observations indicate that one can retain 10% of what he reads, 20% of what he hears and 30% of what he sees. About 50% is remembered of what one hears and sees, 70% is retained of what one hears, sees and discusses.

The use of multi-media in teaching may reduce learning time by as much as 40% and increase retention by 20% or so. (Ref. 11) Out of the five physical sensing channels of the sight, hearing, feeling, testing and smelling the first three are of main importance, while the latter two have much use in the chemical and food industries.

The skills and knowledge that are being received by the various senses are as shown below (Ref. 12).

	Sight	Hearing	Feeling
Skills	25%	10%	65%
Knowledge	75%	25%	

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Chart indicating Links between process of Learning and Instructing / Teaching

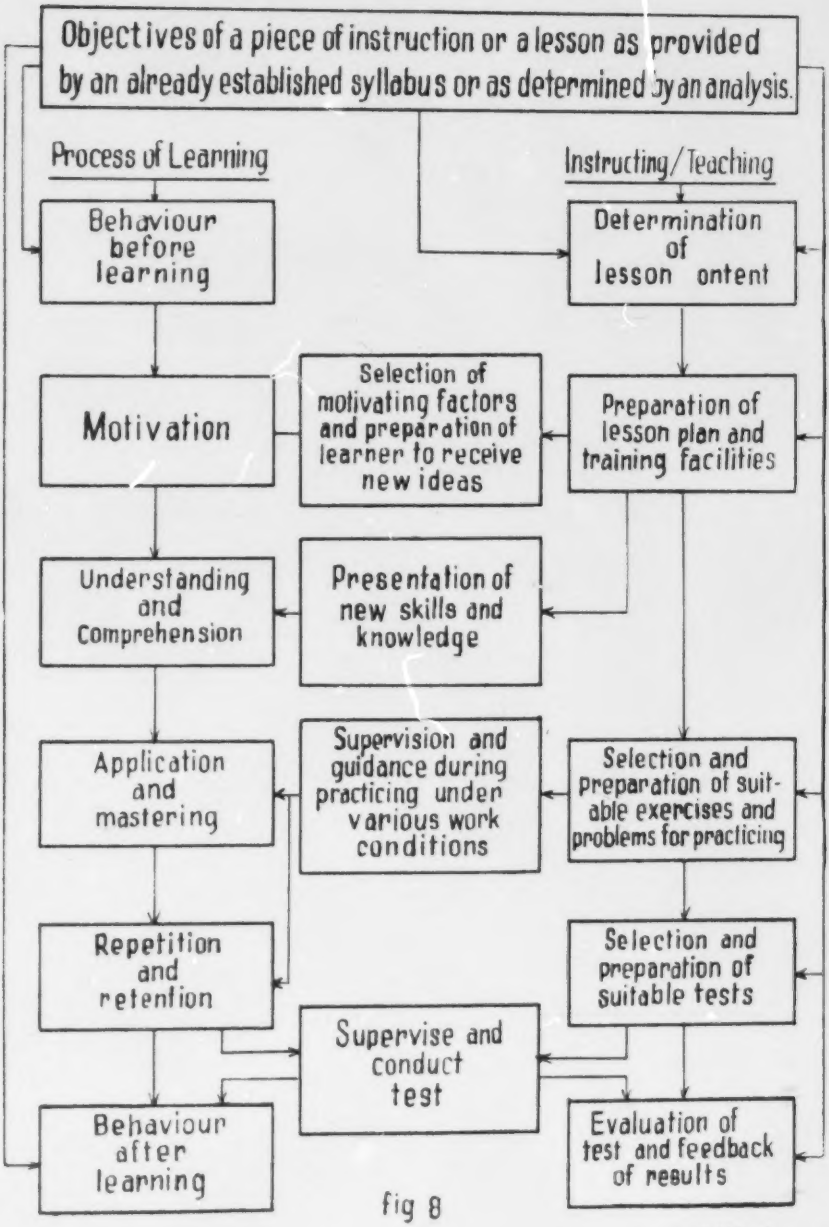
Objectives of a piece of instruction or a lesson as provided by an already established syllabus or as determined by an analysis.
Process of Learning
Instructing / Teaching
Behaviour before learning
Determination of lesson ontent
Motivation
Selection of motivating factors and preparation of learner to receive new ideas
Preparation of lesson plan and training facilities
Understanding and Comprehension
Presentation of new skills and knowledge
Application and mastering
Supervision and guidance during practicing under various work conditions
Selection and preparation of suitable exercises and problems for practicing
Repetition and retention
Selection and preparation of suitable tests
Supervise and conduct test
Behaviour after learning
Evaluation of test and feedback of results

fig 8

Based on this, the presentation of a new topic must have these three components:

(i) conveying basic principles by sight,

(ii) detailed explanation by words, applying to the hearing channels, and

(iii) practical experiences by feeling (smelling and or tasting).

However, the training methodology must include more; eagerness of learning depends largely on the motivation, retention in memory needs stimulation and cultivation. In vocational and technical training the application of the newly learned skills, processes or technology will only be fully mastered if applied and experienced. While technical knowledge may be transferred, practical skills will have to be experienced. A comprehensive training programme must include provision for these. A typical learning process and correlated training activities is indicated by the model in fig. 8.

The applicability and detailed discussion is outside the scope of this paper, there are several books and papers available on the subject and a few are listed in the references. It is, however, very important to select the correct media for presentation and consider its relevance accordingly. Wilshusten and Dr. Stowe (Ref. 13) produced an "If-then" matrix for media selection for applicability of most audio-visual methods, while G. Kent (Ref. 14) describes in detail the technicalities of the audio-visual devices. Whilst most audio-visual devices can easily be appreciated, including the very powerful impressions that can be created by the closed circuit T.V., the programmed learning methods require special attention.

Programmed Learning Instruction

If a trainee is properly motivated, he or she will want to learn. "Students will learn without teaching, but the teacher arranges conditions under which they may learn more rapidly and effectively" state B. F. Skinner, (Ref. 15). The speed of learning depends on the availability of information and the ability of the trainee's own, individual ability. Programmed instruction is a means to provide comprehensive information of principles, where the learner can self-didactively appreciate the given information at his own space. He checks his own progress. If he cheats — he cheats himself.

The programmed instruction, if it is to be of good use, must be directed to a strictly specified target population and must have a specific target. Logical development of thoughts will direct the learner to valid conclusions. A small group at highly knowledgable people (often including educational psychologists) will put several hundreds of man-hours into a short, one hour programme.

Educational psychology has been applied to practical work as well. The re-discover method nuffied method enable young trainers to discover well-known physical principles by carefully guided experimentation. This way, the mental impression is much deeper rooted than by listening to a boring explanation by the instructor of a natural law.

Concluding Remarks

Effective vocational guidance, flexible modular construction and systematised means to build up training programmes exist. Efficient training methodologies have been developed. Their adaptation and use depend partly on financial resources but mainly on a common determination and will.

Precise assessment of the country's need, apt organisation of vocational training guidance, industry geared training programme will help the country to develop its own capabilities and lead to a healthy, balanced employment.

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ANNEX 'A'

Extracts from the proposed conclusions of the 59th Session of the International Labour Conference, 1974. Report VIII (2).

III. Policies and Programmes

7. (1) Members should adopt and develop comprehensive and concerted policies and programmes designed to encourage and enable all persons to identify, develop and use their capabilities for work in their own best interest and to the advantage of society.

(2) Such policies should be aimed at—

(a) facilitating entry into employment, including self-employment ;

(b) maintaining and increasing work effectiveness ;

(c) protecting persons against unemployment or other loss of income or earning capacity deriving from lack of demand for their skills ;

(d) assisting persons in their quest for satisfaction at work, for individual achievement and self-expression, and for the betterment of their lot in life through their own efforts directed at increasing the quality or modifying the nature of their skill contribution to the economy ;

(e) achieving social, cultural and economic advancement and continuing adjustment to changing requirements ;

(f) achieving the full participation of al groups in society in the development process and in sharing the benefits deriving from it.

8. (1) With the above ends in view, members should develop open, flexible and complementary system of general, technical and vocational education, educational guidance and vocational training, regardless of wiether these activities take place within the system of formal education or outside it.

(2) Members should aim in particular at—

(a) providing broadly conceived and realistic vocational guidance for the various groups of the population on all branches of economic activity ;

(b) establishing patterns of systematic vocational training in all branches of economic activity and for all typs of work and levels of skills and responsibility ;

(c) ensuring that all members of the population have equality of access to vocational guidance and training;

(d) undertaking research and adapting administrative arrangements and methods as required for implementing the programmes of vocational guidance and training ;

(e) co-ordinating vocational guidance and training for one sector of the economy or branch of economic activity with vocational guidance and training for other sectors of the economy or branches of economic activity ;

(f) co-ordinating the various activities mentioned in this point with employment possibilities.

9. The policies and programmes of vocational guidance and training should—

(a) be co-ordinated with policies and major programmes for social and economic development such as employment promotion, social integration, agricultural improvement and other rural development programmes, infra-structural investments, small industry development and other industrialisation programmes ;

(b) take account of international economic and technological interaction and co-operation ;

(c) be reviewed periodically in relation to current and planned social and economic development.

IV. Vocational Guidance

10. Members should gradually extend their systems of vocational guidance, including employment information, with a view to ensuring that comprehensive information and guidance on educational, vocational training, employment and career opportunities relating to the various sectors of the economy and branches of economic activity are available to all young persons and adults.

11. The main objectives of vocational guidance programmes should be to :

(a) provide children and young persons not yet in the labour force with the basis for choosing a line of education or vocational training in the light of their aptitudes, abilities and interests and the employment opportunities likely to be available to them ;

(b) assist persons in programmes of education and vocational training to derive the maximum benefit from them and to prepare themselves either for supplementary education or vocational training or for entry into an occupation or line of work ;

(c) assist persons who are entering the labour force, who wish to change their work activities, or who are unemployed, to choose an occupation and to plan related education and vocational training ;

(d) direct the attention of employed persons to opportunities for improving their level of performance, their earnings and their position, to the educational and vocational training requisites for doing so and to the facilities available for this purpose ;

(e) develop general awarness of the contributions to the development process of the various sectors of the economy and branches of economic activity, including those which have traditionally enjoyed little prestige.

12. In extending the scope of their systems of vocational guidance, members should pay special attention to the need for :

(a) children and young persons at school to gain an understanding of the world of work and to familiarise themselves with the conditions of work in as broad a range of occupations as possible, taking account of the employment and career opportunities that may be open to them, as well as with requirements for taking advantage of these opportunities ;

(b) young persons who have never been to school or who left school early to receive information on as broad a range of occupations as possible, taking account of the learning and employment opportunities that may reasonably be expected to be available to them, and guidance on how they may gain access to them ;

(c) adults in employment, including self-employment, to receive information on trends and objectives in development which concern them and on the implications of social, technical and economic change for their field of work ;

(d) unemployed and underemployed persons to receive information and guidance on possibilities of improving their employment prospects and on facilities available for this purpose ;

(e) persons who meet special problems in relation to education, occasional training or employment to receive assistance in overcoming them.

13. (1) Group vocational guidance programme should be complemented as appropriate by individual counselling.

(2) Individual counselling should be available, in particular, to young persons and adults requiring specialised assistance in identifying their occupational aptitudes, abilities and interests, assessing the educational, vocational training and employment opportunities which are likely to be available to them, and choosing a line of education, vocational training or employment.

14. (1) Members whose vocational guidance programmes are in the early stages of development should progressively extend their scope as additional funds and competent staff become available.

(2) These programmes should concentrate, in the first instance, on meeting the needs of :

(a) young persons wishing to enter or engaged in educational streams or vocational training programmes leading to occupations in which there is a serious risk of unemployment or underemployment ;

(b) groups of the population who require help in overcoming traditional restrictions on their choice of education, vocational training or occupation;

(c) persons who have demonstrated potential for innovation, achievement or leadership in fields of work that are of major importance for the advancement of the society in which they live.

15. Members should make full use of all available facilities and media in their vocational guidance programmes and of the channels of communication through which the groups of the population concerned can be reached most effectively.

16. Where tests and examinations are employed in vocational guidance, they should be standardised for the populations and cultural settings concerned and should be validated for the particular purposes for which they are intended.

V. Vocational Training

A. GENERAL PROVISIONS

17. (1) Members should gradually extend or adapt their vocational training systems to meet the needs for vocational training throughout their lives of both young persons and adults in all sectors of the economy and branches of economic activity and at all levels of skill and responsibility.

(2) In doing so they should pay special attention to:

(a) providing opportunities for promotion for persons with the desire and ability to reach higher levels of skill and responsibility;

(b) improving vocational training in sectors of the economy and branches of economic activity in which vocational training is mainly informal and unsystematic and in which economically obsolescent technologies and methods of work prevail;

(c) providing vocational training for groups of the population which have not received adequate attention in the past.

18. Vocational training programmes for individual occupations and branches of economic activity should, as appropriate, be arranged in a recurrent form and in stages which together provide adequate opportunities for—

(a) initial training for young persons with little or no previous work experience;

(b) further training, and particularly;

(i) upgrading to enable persons already engaged in an occupation to improve their performance or broaden the range of activities which they can undertake, and training for higher level work or for promotion;

(ii) updating knowledge and skills in the light of developments in the occupation concerned;

(c) retraining for adults with experience in a different occupational field.

19. (1) Every effort should be made to utilise to the full existing and potential vocational training capacity, including the capacity of undertakings.

(2) Advantage should be taken as approriate in programmes of initial and further training of mass media, mobile units, correspondence courses and other self-instruction programmes.

20. Programmes of initial training for young persons with little or no work experience should include :

(a) general education which is co-ordinated with practical training and related theoretical instruction;

(b) basic training in knowledge and skills common to a broad range of occupations which is given off the job by an educational or vocational training institution or an undertaking;

(c) specialisation in directly employable knowledge and skills;

(d) supervised initiation into a real work situation.

21. (1) Full-time courses of initial training in secondary or higher level institutions of agricultural, commercial and other technical and vocational education and in vocational training institutions outside the system of formal education should include periods of work experience in undertakings.

(2) Such work experience should be planned jointly by the undertakings and institutions concerned with a view to:

(a) enabling the trainees to apply what they have learned in real working conditions;

(b) training them in aspects which cannot be covered outside undertakings;

(c) in the case of young persons with little or no work experience, familiarising them with the requirements and conditions they are likely to encounter at work and with behaviour in a working group.

22. Persons entering employment after completing the full-time courses mentioned in point 21 above should receive :

(a) induction to familiarise them with the nature and objectives of the undertaking and the conditions in which work is performed there;

(b) systematic complementary training on the job, supplemented as necessary by formal courses;

(c) where appropriate, planned experience in a series of activities and functions of training value.

23. (1) Undertakings should establish career plans for persons in their employment at all levels of skill and responsibility.

(2) These career plans should;

(a) provide opportunities to qualify for advancement to higher levels of skill and responsibility;

(b) cover systematic technical and other training and work experience for the persons concerned;

(c) take account of their abilities and interests as well as of work requirements;

(d) be prepared in consultation with the persons concerned and those in charge of their work;

(e) be reviewed at regular intervals with these persons.

24. The attention of persons in charge of the work of others should be drawn to their responsibility for helping to ensure the effective implementation of career plans.

25. Organisational responsibility for the overall planning, implementation and review of career plans should be clearly defined and should be assigned, as far as possible, to a special unit or one or more persons operating at a level commensurate with such responsibility.

DEVELOPING RESEARCHES IN VOCATIONAL GUIDANCE

by

Dr. (Ms) PATROCINIO A. TORIBIO*

The thesis of this paper is based on the following basic assumptions:

1. Purposeful, organised researches are essential for a planned and co-ordinated approach to vocational guidance at the local and national levels.
2. The purpose of research is to identify questions of significance for which answers can be found, create venues by which approaches to questions can effectively be undertaken and provide continuous feedback to those who are in a position to implement the results.
3. There is a need for redefinition and reconceptualisation of theories and strategies in vocational guidance to meet the demands and challenges of local conditions and needs on the basis of new trends.
4. The form and focus of vocational guidance will differ from nation to nation because these dimensions are interactive with the social order, political system and economic structure of the particular society.
5. The systems approach provides for a total, organised procedure for conducting researches that will optimise desired outcomes.

THE CONCEPTUAL FRAMEWORK

Emerging Trends in Vocational Guidance

Vocational guidance in the present age cannot be accomplished with the concepts and tools of the past decades. While the classic approach of matching man and job started by Frank Parsons remains as the basic pattern, it has been found to be too simplistic. Recent researches in education and psychology have indicated important modifications of this basic formula.

Parsons in his day had very limited means of understanding the individual fully or in analysing the requirements of a job. A comparison with our present day techniques indicated that our present devices yield more sophisticated understanding of the individual not only in terms of his capabilities but also the psychodynamic and social factors affecting vocational choice. There is a growing realisation that vocational choice is not a purely cognitive matter, but is highly ego-involved. Occupational and educational information no matter how good are not enough for vocational counselling. Also, while general and specific aptitudes are important,

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the student's attitudes generated by pressures from parents, teachers, peers and community are significant motivators and must be considered. These involve attitude toward others, toward occupation and education and perhaps most important of all attitudes toward self. Attitudes are crucial in determining what is done with aptitude or what an individual perceives when he receives vocational or educational information.

The Individual in the Environment

This focus of vocational guidance on the nature and needs of the individual is being broadened to include the environment in which the individual functions Gordon calls this a "developmental-ecological model". He maintains that the nature and quality of an individual's vocational choices are dependent upon " what is given or possible in the individual and that which is given or possible in the system in which it functions."[1]

This paper takes the view that vocational guidance is both stimulus and treatment. As a stimulus it aids the individual by motivating and developing knowledges, attitudes and skills necessary to cope with decision points, acquire vocational identity and develop vocational maturity. As treatment, it responds to presenting vocational problems and difficulties.

Researches in vocational guidance, therefore, must not only consider the nature of the individual but also the social influences and interaction between the individual and his environment. Consideration should also be given to desired outputs ; and resources both human and material that may aid or negate the attainment of the objectives.

To formulate a master plan for vocational guidance, Herr suggests that the following be established :

1. The outcomes which vocational guidance or vocationalisation are to facilitate ;
2. The process by which persons attain such outcomes and the factors which thwart or negate such development ;
3. The preparation, the competencies, the skills which must be possessed by those who will facilitate the outcomes subsumed (1) as these are mediated by (2) ;
4. The potential impact of different persons as defined by the characteristics of the populations they have contact with — e.g. the age, the period of exposure as well as the characteristics and constraints of the setting in which these personnel operate ;

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1 Edmund Gordon: "Vocational Guidance: Disadvantaged and Minority Populations, in *Vocational Guidance and Human Development*," edited by Edwin L. Herr. (N. J. Houghton Milflin Co. 1974) p. 471.

5. The technology or media which can strengthen the potential impact on the persons identified in (4) given the characteristics of the population to be served.[1]

A Systems Approach

It is in this context that a systems approach to developing researches in vocational guidance is proposed. A systems approach is a disciplined way of analysing as precisely as possible an existing situation by determining the nature of the elements which combine and relate to make the situation what it is, establishing the interrelationships among the elements and synthesising a new whole to provide means of optimizing outcomes.

A conceptual schema for developing researches in vocational guidance which can be applied to local and national levels is presented to call attention to the different elements or antecedent factors ; the relationships between which have to be determined by empirical research. (See Fig. 1) page 178.

SUGGESTED AREAS FOR RESEARCH

The conceptual framework merely suggests the variables to be taken into account. The crucial theoretical questions concerning the relative determinants for the achievements of the desired goals can only be answered on the basis of empirical research.

Goals and Objectives

It is necessary to identify the ultimate goal to be achieved before programme objectives can be formulated. Goals of vocational guidance will differ in the least developed, the developing and well-developed countries because questions facing these governments and their populations differ.

According to Super—

> — When economic and political pressures are great, those who formulate guidance policies tend to stress the importance of directing and training manpower to meet those economic and social needs. When on the other hand, the economy is healthy and the international situation peaceful, those who formulate policies tend to emphasise the importance of self-fulfilment and the contribution which educational and vocational guidance can make to social welfare and to personal happiness.[2]

1. Proceedings, National Conference in Guidance, Counselling and Placement in Career Development and Educational-Occupational Decision-Making (Columbia, University of Missouri, Oct. 1969) P. 31.
2. Donald E. Super, The Broader Context of Career Development and Vocational Guidance: American Trends in World Perspective in *Vocational Guidance and Human Development* edited by Edwin L. Herr (Boston: Houghton, Milflin Co. 1974) p. 71.

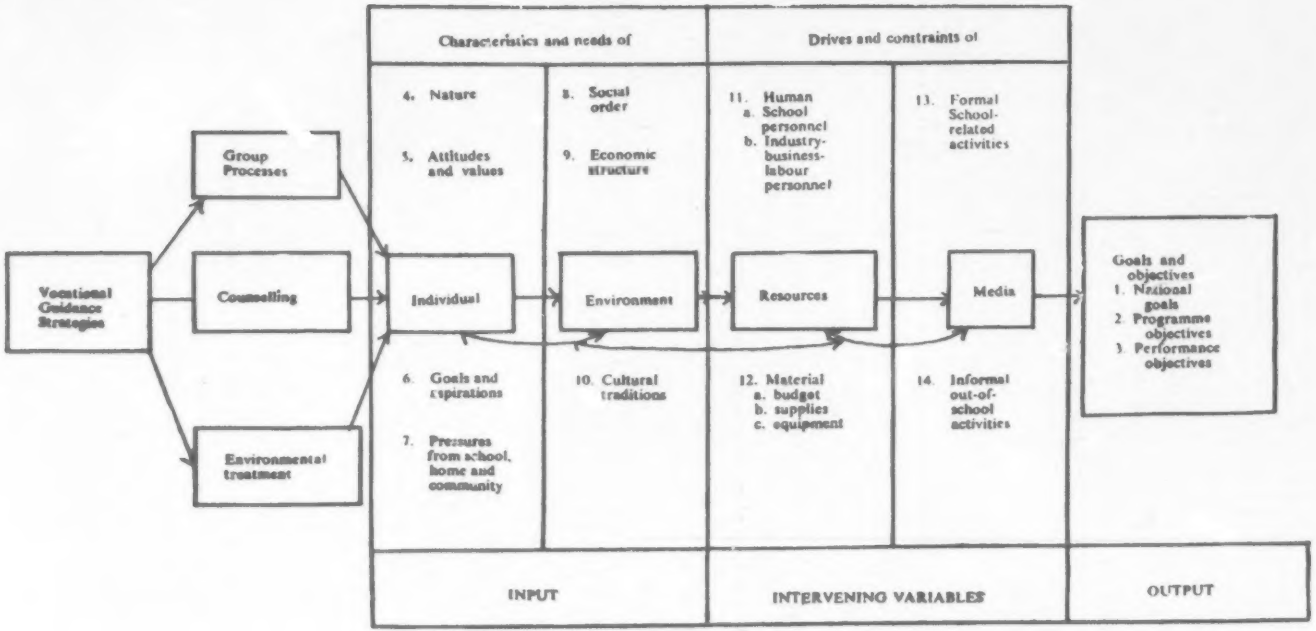

Fig. 1. A Conceptual Scheme for Developing Researches in Vocational Guidance on the Local and National Level.

The basic question therefore arises—

> Is guidance to be for manpower utilisation or
> for individual development?

Programme objectives are established to accomplish the purpose of the instructional project. Relevant to this are the following questions—

1. Are the present objectives of the present vocational guidance programme relevant to the national goals?
2. Are the strategies and approaches of the current programme relevant to the desired goals and objectives?
3. How can the present programme be modified or changed to achieve the desired outcomes?

The Individual and the Environment

There is a current bias in the vocational guidance field which is directed toward identification of abilities, aptitudes and interests of the individual through quantitative testing. A second emphasis is that of providing the individual with opportunities for learning about areas of vocational and educational endeavours. Attention is directed to the individual and how to effect in him a satisfying vocational choice. While this may be the right emphasis for the more affluent countries where the opportunity for choice is more or less unlimited, this may not hold true for the less developed ones. The environment or life space of any person defines the range of alternatives as well as the hierarchy of values he is likely to apply in his ranking of his choices. Geographic, economic and political and social factors are components of the environment which may have negative or positive effects on the individual's vocational development and choice.

A great concern of research, therefore, is to identify the interactive effects of the characteristics and needs of the individual and the characteristics and needs of the environment. Examples of questions that need to be answered are as follows:

1. What are the values of the particular population toward work and how do they affect occupational preferences?
2. How are occupational preferences affected by family and community pressure and what are the implications to labour supply and demand?
3. What are the differential effects of guidance processes on individuals because of differences in culture, social class, maturity level, abilities, attitudes and aspirations?
4. In relation to work attitudes and aspirations what functional aspects of the country's culture and traditions should be maintained and strengthened? What aspects should be modified or changed?

Drives and Constraints of Resources and Media

The accomplishments of the objectives of vocational guidance are dependent on drives and constraints provided by a wide variety of means, media and people.

Attitudes, knowledge and assistance of counsellors, teachers, administrators, parents, employees and workers exert direct influence or have the potentiality for influencing the achievement of vocational guidance goals.

Following are some of the related problems :

1. How do attitudes and knowledges of counsellors, teachers, administrators and people in business and industry effect the achievement of the goals of the programme?
   (a) What unique contributions can each of the above make toward the realisation of the goals?
   (b) What are related constraints and how can these be minimised?

   Specifically, there are questions which relate to the counsellor himself.

2. How adequately prepared is the counsellor to perform his leadership and collaborative functions in the vocational guidance programme?
   (a) Has he the ability and knowledge to enable him to assist teachers individually and through inservice programmes, of strategies and approaches for integrating vocational guidance concepts into the curriculum ?
   (b) How effective is he in the use of such guidance processes as individual counselling, group procedures and environmental treatment in vocational counselling and guidance?
   (c) Does he conduct researches and make use of the knowledge gained in his strategies for vocational guidance and counselling?

3. Are present counsellor education programmes adequate for preparing counsellors to work in vocational guidance programmes particularly with those individuals deviating from the normal ?

   While there are state legislations supporting vocational guidance programmes, insufficient budgetary appropriations offer serious limitations to the programme. Multi-media approaches which will include resources outside of the school system should be tapped and utilised to achieve programme goals. A basic question here is —

4. What resources outside the counsellor himself, e.g. resources in the school in the community service agencies, in the business, labour and industry community are available and are potential sources for the achievement of the goals of the guidance programme and what should be the roles and functions of each, so that effective collaboration can be achieved?

   Since the school curriculum offers the greatest opportunity for vocational development and enhancement possible questions are :

5. How adequate is the present curriculum in meeting the goals of the vocational guidance programme?
   (a) What knowledges, attitudes and skills are being developed or can appropriately be developed in each instructional level—elementary, secondary or post-secondary?

(b) To what extent do teachers make use of their subject matter fields to enhance self-awareness and knowledge of different occupations and careers? Do they have sufficient formal background to make these kind of translations?

(c) What materials and techniques could effectively be used by counsellors and teachers to foster vocational development and maturity?

6. What are the characteristic attitudes of out-of-school media — radio, T.V. print — toward vocational guidance efforts? How can their potentialities be harnessed in the achievement of vocational goals?

A co-operative reciprocal relationship between the school on the one hand and the business-industry labour community on the other will greatly enhance the achievement of the vocational goals. The expertise and resources of business-industry and labour should be combined with the expertise and resources of teachers and counsellors so that the systematic interaction between them would enhance the goals of the vocational guidance programme. Of particular reference would be the need for a more realistic appraisal of entry requirements for jobs so that the employability of certain segments of the population may be increased. Jobs may be broken down into basic skill components which training programmes can provide so that the worker can acquire skills in an evolutionary basis. Questions related to this are :

7. How can manpower be allocated and trained in order to ensure its maximum utilisation?

(a) How can the schools on the one hand and business and industry on the other co-operatively provide for the integration of theory and practice?

(b) What type of education and training will be needed for entry in a given job?

A study of this kind on the national level will be of enormous value in the crucial area of manpower and education. Results of this study will give us an idea of:

Jobs for which a high school education is preferred but not necessary

Job for which a high school education is generally required

Jobs for which apprenticeship training is available and

Jobs for which technical or specialised training is required

Jobs which can appropriately be handled by the socially disadvantaged, the physically and mentally handicapped

(c) How can talent be identified and developed for the diverse specialisations needed?

(d) What technical qualifications are needed for optimum performance of occupational tasks?

(e) What non-technical components such as personality traits, attitudes and values and interpersonal relationships are needed for occupational competencies?

(f) How can the vocational guidance programme be further strengthened for the majority who are "terminal" graduates and early school leavers?

Another area for co-operative endeavour will be in the field of occupational information material. Data supplied by the government, business and industry, disseminated and interpreted by counsellors and teachers on the following aspects are of great importance :

(a) Employment in major industry groups to reveal changes in trends in the labour force and growth expectations.

(b) Job opportunities as determined by growth and replacement needs.

(c) Examination of new developing jobs as a result of automation.

(d) Furture working population estimates.

(e) Potential supply of workers, including supply sources such as schools and training institutions ; transfers from other occupations and re-entries to the labour force.

FURTHER CONSIDERATIONS

In developing researches in vocational guidance the following should be given further consideration:

1. The focus of the research should not be on what is presently obtaining but on what could be more efficient and economical not only for the individual but also for the country as well.
2. Researches should be addressed not only to those in the middle range of social-economic level but also to those who veer from this classification in either direction, the gifted and the culturally deprived.
3. The traditionally static quantitative methods of assessments should be supplemented with qualitative measures. The slant should be on what the individual can become rather than his present ability, capacity or interest.
4. Tests appropriate for a socially advantaged group may be inappropriate for a disadvantaged one. Adaptation or standardisation of tests for differential predictability is important.
5. In the absence of definitive data, there is a need for caution in applying to minority population the findings of studies made of so-called "average" groups.

SUMMARY

To give direction and unity to various fragmented researches that may be done in the local and national level, a systematic approach to vocational research has been presented. An attempt was made to identify the more prominent elements in the area to be explored, taking into consideration not only the nature of the individual, but also the social influences, the interaction between the individual and his environment and the driving or limiting factors which affect the achievement of the goals. The suggested emphasis is not on what is current but in identifying the potentials of the individual and the social system for further growth and development.

The schema merely suggests the variables to be taken into account, but the crucial theoretical questions concerning the relative determinants for the achievement of vocational goals can only be answered by empirical research. As Phillips, puts it, the basic question is—

> Which resources or combination of resources (people, places, media) are appropriate for fostering what type of development, in what type of learner, under what conditions (time, place, size of group) to achieve what purpose?[1]

1. M. G. Phillips, "Learning Materials and Their Implementation" *Review of Educational Research* (1966) p. 373.

THE ROLE OF TESTING IN VOCATIONAL GUIDANCE

by

Mr. JOHN A. HAWK*

An important aspect of vocational guidance is the synthesis of information about the individual with information about occupational requirements. Obviously tests are one source of information about the individual's ability.

It must be stressed that tests are not the only source of information. For any given individual more germane information may be obtained from a consideration of his work experience, hobbies, or educational background. It must also be born in mind that test are not infallible. Most tests require only a few hours to complete. It does not seem to be warranted to make irrevocable decisions based on such a small sample of behavior.

At the present state of the art, tests do not measure all vocationally relevant aspect of behaviour. Such attributes as creativity, drive, responsibility, amiability and conscientousness cannot be adequately measured at present. For many occupations, these attributes are essential.

Tests are not equally applicable to all individuals. The accuracy with which inferences can be made about an individual's future performance based on his performance on a test depends, in part, upon the individual's similarity to the group on which the relationship between test and task has been established. For instance, consider the case where it has been demonstrated that a relationship exists between a test consisting of determining if two English words in a list are the same or different, and a task, consisting of checking the accuracy of two sets of numbers. Suppose further that this relationship was discovered from research with an English-speaking sample. The same relationship cannot be assumed to exist for individuals whose first language is other than English. It is possible to postulate a host of other characteristics which could influence the relationship between test and task.

Although these factors must be considered when evaluating the use of tests, tests are, if properly developed, the most accurate source of information about the individual's ability which are routinely available in vocational guidance.

The proper development of a test consists of determining the test's suitability, reliability and validity. Of these three concepts, suitability is the least well defined.

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The views expressed are those of the author and not necessarily those of the United States, Department of Labour.

Suitability involves a large number of factors. Ideally, the test should be short, easily administered, amenable to quick and accurate scoring, cover only the ability being measured and be reliable and valid. Some of these characteristics are mutually exclusive. For instance, reliability depends, in part, on the length of the test ; to be reliable, the test cannot be extremely short. To measure some kinds of complex abilities, it would probably be necessary to use a work sample ; to determine the person's ability to compose music, it would be necessary to ask him to write music. Determining the relative quality of musical works poses obvious difficulties ; this test would not be easily scored. A reasonable compromise among the desirable characteristics of a test has been found to be some form of an objectively scored multiple-choice test.

If the test has been judged to be suitable, the second step in its development is to determine its reliability. We need to know how large an effect chance has on the test score.

The third step in test development is to determine its validity, i.e., the relationship between test scores and success in school or in an occupation. In some cases content validation suffices when the content of the test is very nearly the same as that of the task. This approach is used by teachers when constructing classroom tests; the content of the test is a sample of the subject matter which should have been learned. Another example of the use of content validity is the use of typing test to select individuals for typing jobs. However, use of this strategy limits the generalization possible. Conceivably, a different test could be required for each job. A more efficient use of test information in vocational guidance can be made if an empirical validation strategy is followed. This involves gathering data on job performance and correlating it with test performance. Thus the same test may be used to predict a number of jobs as there is direct evidence of the test-task relationship.

To illustrate this process, I would like to outline the development of the tests I am most familar with, the General Aptitude Test Battery (GATB).*

The original edition of the GATB was published in 1947 by the U.S. Employment Service.

The basic assumption underlying the GATB is that a large variety of tests can be boiled down to several factors or aptitudes and that a large variety of occupations can also be clustered into groups according to similarities in the abilities required. This makes it feasible to test a person's vocational abilities in one sitting and to interpret his scores in terms of a wide range of occupations.

The GATB edition in current use, B - 1002, yields 9 aptitude scores from 12 tests as follows :

G — Intelligence

Part 3 — Three - Dimensional Space

*Much of the discussion of the development of the GATB is adapted from a paper by Beatrice J. Dvorak in the Personnel and Guidance Journal, Vol. 35, No. 3, November, 1956.

Part 4 — Vocabulary
Part 6 — Arithmetic Reasoning

V — Verbal Aptitude
Part 4 — Vocabulary

N — Numercial Aptitude
Part 2 — Computation
Part 6 — Arithmetic Reasoning

S — Spatial Aptitude
Part 3 — Three-Dimensional Space

P — Form Perception
Part 5 — Tool Matching
Part 7 — Form Matching

Q — Clerical Perception
Part 1 — Name Perception

K — Motor Co-ordination
Part 8 — Mark Making

F — Finger Dexterity
Part 11 — Assemble
Part 12 — Disassemble

M — Manual Dexterity
Part 9 — Place
Part 10 — Turn

Finger dexterity and manual dexterity are measured with the use of apparatus while the other aptitudes are measured by paper-and-pencil tests. Alternate forms of the tests are available for Parts 1 - 7. The items for the paper-and-pencil tests were selected and arranged in order of difficulty after item analysis studies had been conducted to determine the difficulty level and discriminating power of each item.

The 9 aptitudes were identified by factor analysis studies of over 50 tests that had been in use for a period of years and the 12 tests were chosen to provide for an adequate measure of all 9 aptitudes. Two criteria were applied in the choice of the tests — factorial validity and empirical validity. Sometimes the test with the highest factorial validity was disregarded in favour of a test that had acceptable factorial validity but had also repeatedly demonstrated its practical validity against an external criterion of success for a number of jobs. The factorial validity of each aptitude — whether measured by 1, 2 or 3 tests — is at least 0.50.

Results of maturation studies conducted on high school students have shown that here is an increase in GATB aptitude scores each year from the ninth grade through the twelfth grade, but that the effects of maturation from grade 11 to 12 are small. The average age of the grade 11 individuals in the studies was 16.4. Hence the GATB is applicable to employment applicants who are at least 16 years of age and to students who have completed at least the tenth grade.

Reliability studies on the GATB have been concerned with two types of reliability measures—stability and equivalence. Coefficients of stability have been obtained by correlating test and retest scores, with varying periods of time between testing and retesting. Coefficients of equivalence have been obtained by correlating scores on two forms of the same test administered at essentially the same time. The GATB Manual, Section III, reports these types of reliability coefficients for GATB aptitude scores on various types of populations — males, females, local Employment Service office applicants, high school students, and college students. For instance the median coefficient of equivalence for the aptitudes measured by paper-and-pencil tests of Form A and Form B of the GATB, B — 1002, for local Employment Service applicants was 0.88 on a sample of 95 males and 0.86 on a sample of 85 females. The median coefficient of stability for aptitudes measured by paper-and-pencil test of Form A of GATB, B — 1002, for local Employment Service applicants was 0.90 on a sample of 276 males and 0.88 on a sample of 246 females. The reliability of the aptitudes measured by appratus is somewhat lower.

Administration of the GATB requires about two and one-quarter hours. All of the paper-and-pencil tests in the B — 1002 edition except Part 8 are arranged in two booklets for which IBM answer sheets are provided. Part 8 is on a separate sheet and no answer sheet is required. The scoring stencils for the answer sheets may be used for either hand or machine scoring.

Raw scores are converted to aptitude scores by use of conversion tables. When more than one test is used to provide a measure of a given aptitude, the converted scores for each test are summed to obtain the aptitude score. These aptitude scores are standard scores where 100 represents the average of the general working population with a sigma of 20. As a general working population sample, we selected 4,000 workers who were typical of the age, sex, educational, occupational, and geographical distribution of the general working population according to the 1940 Census.

Our continuing programme of GATB research is conducted on a decentralized basis with the State Employment Services gathering data in co-operation with employers, schools, and colleges and feeding it into our national office. There we consolidate the data from various states and issue occupational norms for national use.

The process of developing occupational norms for the GATB involves several steps. The first step is the job analysis. By direct observation of the job and interview we obtain information concerning the job duties, skills, knowledge, abilities and training time. We pay particular attention to the aptitude involved in peforming the job so that the job analysis is aptitudinally slanted.

Then a suitable criterion or measure of job proficiency is chosen. We have used various types of criteria such as average hourly production, average hourly earning, work samples, and supervisor's ratings.

The entire GATB is then administered to an experimental sample that is relatively homogeneous with respect to age, education, and experience. The experimental sample may consist of employed workers who are all performing the

same job duties, or trainees in the same training course. On the other hand, the longitudinal design may be used. This involves the testing of applicants before they enter training or employment on the job but not using the test scores in the placement process.

After the tests have been administered and the criterion data have been collected, the data are analyzed to determine the significant aptitudes for the job. We are interested in occupational differentiation as well as in differentiating good from poor workers within an occupation. We analyze the data in four ways: We correlate all the aptitude scores on the GATB with the criterion; we compute the mean scores for all the aptitudes and compare them with the means for the general working population; we compute the sigmas for all the aptitude score distributions and compare them with the sigmas for the general working population to get an indication of the range of talent; we analyze the job analysis information qualitatively. The result of this analysis provides the key abilities required for the performance of the job. After the key abilities have been selected the norms are established in terms of minimum scores for each of the significant aptitudes. These cutting scores are set at the point which will provide good differentiation between the good and the poor workers or trainees, as indicated by a significant phi coefficient between the dichotomized criterion and the test variate dichotomized on a multiple hurdle basis. An effort is made to determine a meaningful point of dichotomy between satisfactory and unsatisfactory performance, such as the minimum production level that the company has found to be the "break-even" point—the point below which the worker is a liability rather than an asset to the company. Whenever possible, cross-validation studies are conducted to determine the effectiveness of the norms when applied to new samples of workers or trainees that were not involved in the original standardization.

Occupations on which the GATB has been validated were grouped into Occupational Aptitude Patterns (OAP's) on the basis that similar aptitudes at similar levels predict success in the occupations grouped into an OAP. Currently the 466 occupations on which validation studies have been conducted are grouped into 62 OAP's. Additional occupations which have job duties similar to those on which research has been conducted have been incorporated so that over 1200 occupations are now covered by OAP's. When a new occupation is studied, a four-fold table is prepared to show the relationship between the OAP norms and the criterion for the occupational sample, dichotomized at the same point used in the evaluation of the specific norms for the occupation and a phi coefficient is computed from these data.

During the past several years, we have been making a concerted effort to determine if the validity of the GATB differs for different ethnic or cultural groups in the United States. These data are exceedingly difficult to obtain as by virtue of being in the minority, relatively few occupational samples are available which contain a sufficient number of minority group individuals to permit statistical comparisons to be made. To date studies of around 20 occupations have been made. Differences in validity have not been found.

The specific norms for occupations are used by local Employment Service offices in test-selection of workers for referral to specific jobs in which the applicant has had no previous experience or training. Follow-up studies have been conducted to evaluate the effectiveness of test-selected workers for employers. We use the test results in making selections of applicants for referral to employers and then compare the subsequent success of these new workers with other workers in the same job in the plant but who were not test-selected. Results of such studies show that test-selected workers have lower turnover rates, achieve greater production and require less training time than non-test-selected workers in the same organization.

The entire GATB is administered and the occupational aptitude norms (OAP's) are used in the counselling of Employment Service applicants. In addition, a number of colleges and universities, prisons, VA hospitals and other non-profit organizations are using the GATB.

Although primary emphasis in our test research programme has been given to SATB revalidation, other testing tools are also being developed and used to meet special needs of minority and disadvantaged workers as well as other applicants.

1. **The Non-reading Aptitude Test Battery (NATB)** consists of 14 tests measuring the same 9 aptitudes measured by the GATB. It was developed for use with educationally deficient individuals who do not have sufficient literacy skills to take the GATB.
2. **A new Spanish edition of the GATB, the Bateria de Examines de Aptitude General (BEAG)** is being developed. The objective is to make available a Spanish version of the GATB that will be suitable for Puerto Ricans, Mexican Americans, and other Spanish-speaking applicants. A Spanish version of the GATB developed in Puerto Rico has been in use for several years.
3. **The Basic Occupational Literacy Test (BOLT)** is used to measure the literacy skills of educationally deficient applicants in relation to the literacy requirements of occupations. Criterion-related studies are underway to validate the BOLT against literacy skill requirements of specific occupations.
4. **An Occupational Interest Inventory** oriented to the USES "Dictionary of Occupational Titles" (DOT) is being developed. The goal of this research which is in the data analysis stage, is to make available an interest inventory which will allow an applicant's occupational interests to be related directly to DOT Areas of Work.
5. **Pretesting Orientation Techniques** have been developed and are being used in orienting applicants to the testing situation. The techniques include a booklet "Doing Your Best on Aptitude Test" available in English and Spanish; a booklet "Doing Your Best on Reading and Arithmetic Tests;" a miniature aptitude test battery "Pretesting Orientation Exercises;" and an illustrated lecture-discussion technique "Pretesting Orientation on the Purpose of Testing" available in English and Spanish.

6. **Clericial skills tests** are used in determining the degree of proficiency attained in typing, dictation and spelling as an aid in determining qualifications for clerical occupations requiring these kills.

In conclusion, let me mention some of the weaknesses and strengths of the programme as I see them. As with any research programme, hindsight reveals many mistakes and shortcomings. The ones I see as being most important follow. The instruments are vocationally oriented; there has been little contact with the educational establishment. Perhaps, given the structure of the Government of the United States, this is inevitable. The basic research has sometimes been neglected, often caused by lack of staff time. There have been some areas of research which have been neglected, notably criterion development and, until recently, the development of interest measures.

Being personally involved I believe, of course, the strengths outweight the weaknesses. The test development programme has had great stability. This is due, in large part, to the leadership of the late Dr. Beatrice J. Dvorak who directed the programme from its inception until her death late in 1975. Stability is, I believe, vital. Test development is a long tedious, painstaking process. The research done has generally been sound theoretically and technically. The emphasis has generally been — properly I think — on the empirical validation of the instruments. Perhaps, most importantly, the research has been done to aid the programme — it is an attempt to provide practical solutions to specific problems.

COLOMBO PLAN BUREAU
NATIONAL SEMINARS, COUNTRY WORKSHOPS AND REGIONAL COLLOQUIA

The Colombo Plan Bureau has held the following National Seminars, Country Workshops and Regional Colloquia with the active co-operation of the member governments concerned :

National Seminars

"Approaches to Co-operation between Industries and Institutions in Technical Training."

—Colombo, Ceylon	.. February	1965
—Bangkok, Thailand	.. October	1965
—Manila, Philippines	.. March	1966
—Singapore	November	1967
—Teheran, Iran	.. June	1968

"Manpower Assessment and Educational Planning"

—Colombo, Ceylon	.. June	1966

"National Planning of Vocational and Technical Training"

—Lahore, Pakistan	.. July	1969
—Tjipajung, Indonesia	.. December	1969
—Petaling Jaya, Malaysia	.. June	1970
—Seoul, Republic of Korea	.. August	1970
—Kathmandu, Nepal	.. June	1972
—Male, Republic of Maldives	.. June	1974
—Dacca, Bangladesh	.. February	1975
—Thimphu, Bhutan	.. April	1976

"Technical Education and Training"

—Madras, India	.. December	1972

Country Workshops

"New Directions in Vocational Guidance"

—Marikina, Rizal, Philippines	.. February	1974
—Islamabad, Pakistan	.. February	1976

Regional Colloquia

"Intra-Regional Technician Training"

—New Delhi, India	.. April	1965
—Bangkok, Thailand	.. June	1967
—Singapore	.. May	1969
—Manila, Philippines	.. March	1971
—Karachi, Pakistan	.. April	1973
—Kuala Lumpur, Malaysia	.. April	1975